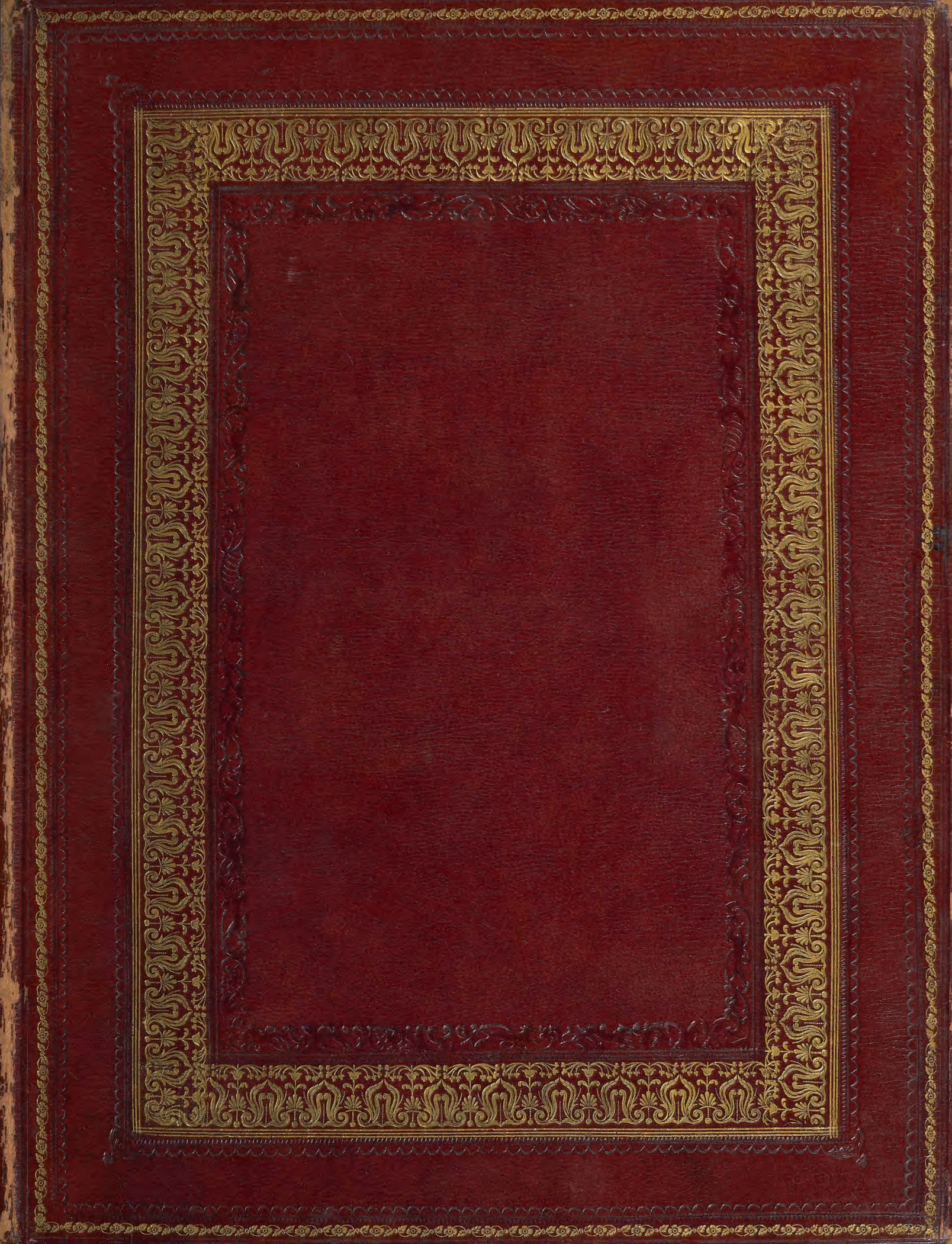
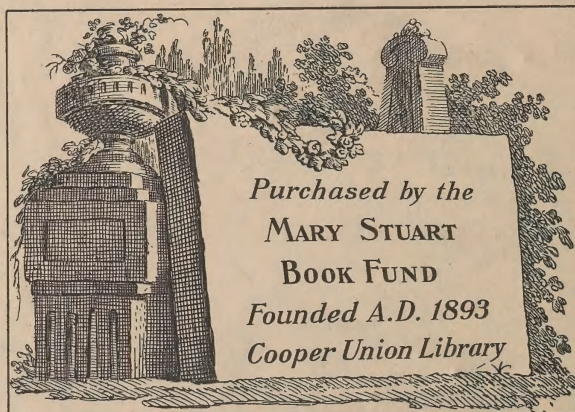






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A
CABINET
OF
QUADRUPEDS,

*with Historical and Scientific
Descriptions*

BY JOHN CHURCH. F.R.S.

VOL. 2.

Drawn by J. Abbottson.

Engraved by J. Tooke.



LONDON.

Printed for Darton & Harvey.

— 1805. —

A
Cabinet of Quadrupeds;

CONSISTING OF
HIGHLY-FINISHED ENGRAVINGS,

BY JAMES TOOKEY;

FROM
DRAWINGS, BY JULIUS IBBETSON;

WITH
HISTORICAL AND SCIENTIFIC DESCRIPTIONS,

BY JOHN CHURCH,
FELLOW OF THE MEDICAL SOCIETY OF LONDON.

VOL. II.

London:
PRINTED FOR DARTON AND HARVEY, GRACECHURCH STREET;
AND W. BELCH, CARDIFF;
By Darton and Harvey, Gracechurch Street.

1805.



Engraved by W. Jones, J. Harvey, & W. Felch. London. February 18 1767.

LION

THE LION.

GENERIC CHARACTERS.

Six cutting and two canine teeth, and six grinders in each jaw (A).

Five toes before; four behind.

Sharp hooked claws, lodged in a sheath (B), capable of extension or retraction at pleasure.

Head round, visage short, tongue rough.

(A) The members of the Royal Academy of Sciences at Paris, who dissected two Lions, give the following account of the teeth, which is somewhat different. "It had fourteen teeth in each jaw, viz. four incisives, four canini, and six molares. The incisives were little, and the canini very uneven, having two great and two small ones. The great ones, which were an inch and an half long, are those which Aristotle calls canini: but each of these was accompanied with another little one, which was at the side of the incisives, and which left in the upper jaw, between it and the great one, as much void space on each side, as was necessary to lodge and insert the hook of the great caninus of the inferior jaw, in which there was likewise a space between the great caninus and the first of the molares, designed to lodge the great caninus of the upper jaw, but which was much larger, to the end the lower jaw might be advanced forward occasionally."—*Memoirs Royal Acad. Scien. Paris*, p. 4. We have carefully examined the mouth of a Lion, now in the Tower, and find the account given by the gentlemen of the Royal Academy is founded on fact. The same conformation is likewise observable in the teeth of the Leopard.

(B) The same accurate anatomists give the following curious account of the claws, which we cannot resist the temptation of inserting. "The claws had no cases, as Pliny reports they have, to keep them from being dulled by walking; but it appears rather, that these animals, as Plutarch and Solinus observe, provided for that, by retracting them between their toes, by means of the particular articulation of the last joint, which was such, that the last bone, save one, by bending itself outwards, gives place to the last, which is articulated to it, and to which the claw is fastened, to bend itself upwards and sideways, more easily than downwards; being drawn upwards, by means of a tendinous ligament, which fastens together the two last bones in their superior and external part only; and which, suffering a violent distention, when the toe is bent inwards, extends this last articulation, as soon as the flexor muscles come to slacken, and strengthens the action of the exterior muscles; so that the bone, which is at the end of every toe, being almost continually bent upwards, it is not the end of the toes which rests upon the ground, but the node of the articulation of

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SYNONIMS.

LEO, *Plin. Hist. Nat.* lib. viii. c. 16. *Gesner Quad.* 572.

Raii Syn. Quad. 162.

FELIS LEO, *Linn. Syst.* 60.

LOWE, *Klein Quad.* 81.

LION, *Pennant Syn. Quad.* 146.

LE LION, *de Buffon*, ix. i. *tab.* i. ii.

THE majestic deportment of the Lion, united with his decided superiority over most other animals, has, as it were, by common consent, obtained for him the title of the king of beasts. Bold and confident in his look, and proud in his gait and demeanour, he commands respect at first sight. His figure is striking and his voice terrible. His length is sometimes between eight and nine feet, and his height four feet and a half; notwithstanding which, he is so far from appearing clumsy or unwieldy, that he may justly be considered as a perfect model of strength and activity. His head is large and muscular, and his face broad, furrounded with a long shaggy mane, which covers the top of his head, and extends along his neck, breast, and shoulders. This he can erect upon the least irritation, when his eye-balls instantly flash fire, the muscles of his face become convulsed, and form frightful wrinkles on his forehead and cheeks; he shews his tremendous teeth, and exhibits a spectacle of horrid grandeur, which beggars description. The eyes of the Lion are lively and piercing, they are furnished with a membrane(A), which he can extend over them at pleasure, like Owls, and most animals which hunt their prey in the dark; it

the two last bones; and thus, in walking, the claws remain elevated and retracted between the toes; to wit, all those of the right paws, towards the right side of every toe; and all those of the left paws, towards the left side; the bending of the toes to walk being caused only by the tendons of the higher muscles, and those of the lower muscle never moving, but when it is necessary to extend the claws, which proceed out of the toes when the last joint is bent downwards. This admirable structure is not found in the great toe, whose last joint bends only downwards, because that this toe rests not on the ground, being shorter than the rest, and having but two bones as is usual."—*Ibid.* p. 3.

(A) *Ibid.* p. 4.

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is probable that this circumstance has given rise to the common opinion, that the Lion always sleeps with his eyes open. His eyebrows are large and lofty, and he wrinkles them in a manner equally menacing and terrible. His nose is large and broad, his mouth wide, and his jaws are formed with prodigious strength; his tongue is large and rough; it is covered with crooked pointed hard substances, resembling the claws of a Cat in size and shape, and bent back towards the throat: this conformation of the tongue renders his caresses particularly dangerous, for his licking soon benumbs and excoriates the place, so as to give him a taste of the blood, which will infallibly tempt him to bite the limb he is caressing. The general appearance and shape of the Lion is greatly altered by his shaggy mane; divest him of that, and he is much like the Lionsess, except that his head is rather larger in proportion, and his face more muscular. The hair under the belly is likewise much longer in the Lion than the Lionsess. His tail, which is about four feet long, is not, as it appears to be, of the same thickness throughout, but gradually tapers, as in other quadrupeds: the deception arises from the lengthening of the hairs, as they approach towards the extremity of the tail, which is adorned with a large tuft of long hair. The legs and feet appear thick and large in proportion to the size of his body; they are amazingly strong, yet withal so supple and active, that he moves with as much ease and agility as a Cat. The usual colour of the Lion is a tawny yellow, inclining to white on the belly; but it is subject to some varieties.

In the burning and uninhabited deserts of Zaara and Biledulgerid, the Lion is found replete with savage rage and undaunted ferocity. Accustomed to conquer every animal he meets, he becomes terrible and intrepid by habit, and appears not to know the sensations of fear. Unacquainted with the dangerous arts and arms of man, he seems neither to apprehend nor dread the power of them: he boldly defies and attacks his antagonist: resistance and wounds serve but to provoke his rage, and increase his ardor, and, when he is overpowered by the superior address of his enemy, he scorns to seek his safety in flight, but, valiant in death, faces him to the last, and disputes the victory till he is totally subdued. But, in the cooler regions,

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inhabited by man, the case alters; there, become prudent by experience, his natural boldness is abated, and shunning the unequal combat, he seeks to avoid those weapons, which his valour will not enable him to subdue. Thus the courage of the Lion seems much to depend on the heat of the places he inhabits, and the degree of resistance he meets with; and is sometimes so much subdued, that even the crack of a whip (A), or a loud shout will scare him away; and women, nay, even children, are sufficient to drive him from the cattle he is about to attack. It is probable, from this evident alteration in the disposition of the Lion, that he is capable, in some measure, of receiving the impressions of education: he is certainly sensible of caresses, and will lick his keeper's hand, and suffer his tongue and mouth to be handled with impunity; he even bears chastisement with grave composure; but, like the Cat, his friendship is not to be depended on, and if his resentment is once excited, the consequences are terrible. It appears, however, from innumerable testimonies, that his anger is noble, and his courage magnanimous; and some instances are recorded, which prove him grateful; among others, the famous story of Androclus the slave, related by Aulus Gellius. This man was compelled, by the severity of his master, to escape by flight, and conceal himself in the desert parts of Africa. Scorched by the burning heat of the sun, he took shelter in a cave, which he met with; he had not remained there long, before a Lion entered the same cave, moaning and shewing evident marks of distress and pain; as soon as Androclus had recovered a little from the terror excited by the appearance of the tremendous animal, he observed that the Lion was lame in one of his feet, which he presented to Androclus, seeming to entreat his assistance; encouraged by the gentle demeanour of the Lion, he ventured to examine his foot, in which he found a very large thorn stuck fast; this he presently extracted, and squeezed out the blood and matter from the wound, to which he applied proper remedies, and shortly completed the cure. During, this period, the Lion constantly brought him the best parts of the animals he

(A) Sparrman.

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killed, which, having no fire, he dressed by the heat of the sun. They lived thus in harmony above three years, when Androclus, tired of the company of his savage friend, quitted the cavern and went to Rome, where he was soon recognised, and condemned to be torn in pieces by wild beasts. A Lion was accordingly turned loose upon him, which, as soon as he saw him, instead of attacking him, instantly paused, as if to recollect himself; then gradually approaching him, he began to fawn on him, and loaded him with his caresses: when Androclus was recovered from his first panic, he soon recollected his old friend and companion in the cavern, who had been taken captive soon after their separation, and by that means, had this opportunity given him of showing his grateful remembrance of his friend's services, by sparing the life of him, from whom he had received so much benefit. Their joy and caresses were mutual, the scene was truly affecting, and Androclus obtained his pardon (A.)

But a more recent instance of the Lion's recollection, is related by Mr. Hope (B,) in the following words: "One day that I had the honour of dining with the Dutchess of Hamilton, her Grace told the company, after dinner, if they had any curiosity to see her Lion, she would attend them, and order the keeper to feed him. We gladly accepted the offer, and went down to the court, to see the Lion get his dinner. While we stood at the cage, admiring the fierceness of his looks, and his terrible roar, each time we provoked him with sticks to fly at us and abandon his prey, the porter came and told the Dutchess, that a sergeant, with some recruits at the gate, begged leave to be admitted to see the Lion. Her Grace, with great condescension and good-nature, asked permission of the company to let the travellers come in, as they would then have the satisfaction of seeing the animal fed. They were accordingly admitted, at the moment the Lion was growling over his prey. The sergeant advancing to the cage, called out, "Nero, Nero, poor Nero, don't you know me?" The animal instantly turned his head and looked at him; then rose up, left his prey, and came

(A) Aulus Gellius, lib. 5. cap. 14. (B) Thoughts, in Prose and Verse, by John Hope, Stockton, 1782.

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“A farmer, who had the misfortune to see a Lion seize two of his Oxen, at the very instant that he had taken them from his waggon, informed me that they immediately fell down dead upon the spot, close by each other, though, upon examining the carcases afterwards, it appeared that their backs had only been broken.” But his conduct towards the human species appears to be more noble; satisfied with merely wounding his unhappy victim, he seldom deprives it of life, unless he is very much provoked; or at least he waits some time before he gives the fatal blow. In support of this opinion, the Doctor has favoured us with the two following narratives: “Near the upper part of Dayven-hoek Rivier, I myself,” says he, “saw an elderly Hottentot, who at that time, his wounds being still open, bore under one eye and directly upon his cheek-bone, the ghastly marks of a Lion’s bite, which was the only chastisement this noble animal had thought it worth his while to inflict upon him, for having, along with his master, whom I also knew, and several other Christians, hunted him with great intrepidity, though unsuccessfully.” “The conversation turned every where, in this part of the country, upon one Bota, a farmer and a militia captain, who had lain for some time under a Lion, and had received several bruises from the beast, having been, at the same time, severely bitten by him in one arm, as a memorial to remember him by; but, upon the whole, had his life given him by this generous animal.” It must still, however, remain a matter of doubt, whether this merciful disposition of the Lion, towards man, is the effect of real generosity; or whether it is the consequence of mere caprice or want of appetite.

But let us take a view of the Lion in a state of savage freedom, uncontrolled by the confinement of a cage, or the chains of slavery; and this we are enabled to do by the assistance of Dr. Sparrman, who penetrated far into the interior parts of Africa, and had frequent opportunities of observing the habits of this animal, as well as of being informed of them by the natives; we shall therefore close this account with some observations and anecdotes chiefly on his authority.

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From several facts related by the Doctor, it may fairly be inferred, that it is not true magnanimity, but rather an insidious and cowardly disposition, mixed with a certain degree of pride, which forms the character of the Lion; and that uncommon degree of courage and fortitude, which he sometimes appears to possess, is perhaps more the effect of hunger than natural disposition: unaccustomed to meet with any opposition, it is no wonder that he is soon daunted when he does, and that when he has once proved by experience the resistance man is able to make against him, he shuns the unequal combat, and seeks his safety in flight.

The Lion will not attack any animal openly, unless he is urged by rage or extreme hunger; in either of these cases, he is fearless of danger, and his fury is not to be checked by any resistance. His method of seizing his prey, is generally to spring or throw himself on it, with one great leap from the place where he lies concealed. If by chance he misses his aim, the Hottentots unanimously agree he will not repeat the attack, but, as if ashamed of his awkwardness, turning towards the place from whence he sprang, he measures slowly, step by step, the exact length between the two points, as if it were to ascertain the cause of his mistake. The following narrative will serve to shew that this is his usual mode of attack. "An elderly Hottentot, in the service of a Christian, near the upper part of Sunday-rivier; observed a Lion following him at a great distance, for two hours together: he naturally concluded that the Lion only waited the approach of night to make him his prey; and as he was at a considerable distance from home, with no weapon of defence except a staff, he gave himself up for lost. Being, however, well acquainted with the nature of the Lion, and his manner of seizing his prey, he availed himself of the leisure he had, to consider what would be the most probable means by which he would be destroyed; and, at last, providentially hit upon the following method of saving his life: he looked out for what is there called a *klipkrans*, which is a rocky place level at top, and having a perpendicular precipice on one side of it, and sitting himself down on the edge of this precipice, he observed, to his great satisfaction, that the Lion also made a halt, and kept at the same distance as before. As soon as it began to

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grow dark, the Hottentot, sliding gently forwards, let himself down below the upper edge of the precipice, upon a projecting part of the rock, where he had barely room to keep from falling: but in order to deceive the Lion, he set his hat and cloak on the stick, making with it a gentle motion just over his head, a little way from the edge of the precipice: this crafty expedient had the desired effect: the Lion soon came creeping softly towards him like a Cat, and mistaking the skin cloak for the Hottentot himself, took his leap with such exact precision, that he fell headlong down the precipice, and thus relieved the poor Hottentot from his fears and danger."

The Lion is hunted on horseback in Africa, much in the same manner as they hunt the Elephant: as many particulars respecting the disposition of this animal may be learned from it, we shall add the following concise account of it.

The hunters never venture to pursue the Lion on horseback except on the open plains. If it keeps in some coppice, or wood, on a rising ground, they tease it with Dogs, till it is provoked to come out; they generally go two or more in company, that one may assist and rescue the other, if the first shot should chance to miss.

If the Lion first sees the hunters at a considerable distance, he takes to his heels as fast as he can, and endeavours to get out of sight; but, if he is discovered near, he walks off in a surly manner, without hurrying himself in the least, as if he scorned to betray any fear. When he finds himself vigorously pursued, he is soon provoked to resist, or at least he disdains to fly any longer. He now slackens his pace, and at length only sidles away slowly, step by step, eyeing his pursuers askant as he retreats; at length he makes a stand, turns round to face them, and, giving himself a shake, he roars with a short and sharp tone, to shew his rage, being then in fact ready to seize on them and tear them in pieces. This is the precise time for the hunters to approach the Lion, keeping at a proper distance from each other, and he that is nearest, and has the best mark presented him of that part of the Lion's body which contains his heart and lungs, should be the first to jump from his Horse, and, securing his bridle, by putting it round his arm,

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discharge his gun; then instantly recovering his seat, he must ride obliquely athwart his companions, and, giving the reins to his Horse, must trust entirely to his speed and fear, to convey him from the reach and fury of the enraged beast, if he has only wounded, or totally missed him. In either case, a fair opportunity offers for some of the other hunters to fire in their turn, in the same manner, and divert the attention of the Lion from their companion. In this manner they mutually relieve each other, till the destruction of the beast closes the scene. There has never been an instance known of any accident happening to those who hunt the Lion on horseback, provided they are accustomed to the sport, and conduct themselves with prudence. The African Colonists being in general good marksmen, and far from deficient in courage.

The Lion is easily killed with a bullet: if it enters the heart or lungs, his death is immediate; but should it wound the intestines, or lodge in the cavity of the abdomen, he is presently thrown into vomitings, which disable him from running.

The largest Lion is easily overcome by twelve or sixteen of the common farm-house Dogs, provided they attack him in the day time, and on an open plain. As soon as the Dogs approach the Lion, he disdains to fly any farther, but sits himself down. The Hounds then get round him, and rushing on him all at once, are thus, with their united strength, enabled to tear in pieces, almost in an instant, the strongest of all wild beasts, before he has time to give more than two or three flight strokes with his paws; each of which, however, is instant death to the dog which is unfortunate enough to receive it.

It is difficult to describe the roaring of the Lion, so as to convey an adequate idea of it: it consists of a hoarse, inarticulate, hollow sound, something like that which proceeds from a speaking trumpet, but much more tremendous: it seems as if it proceeded from under the earth, and its slow, prolonged note, accompanied by the nocturnal darkness, and the terrible idea one is ready to form of this tremendous animal, never fails to make the most alarming impression on the hearer, and serves as a warning to other

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animals to betake themselves to flight; but as, according to universal report, he always puts his mouth to the ground when he roars, the sound is equally diffused in all directions, so that it is impossible to ascertain from what quarter it proceeds; the poor animals, therefore, are so affrighted and teased, that they fly about in every direction, and frequently run to the very spot they ought to shun, and become the easy prey of the animal they are so anxious to avoid. Dogs and cattle betray a consciousness of the vicinity of a Lion, whether he roars or not. Dr. Sparrman says, in this situation his Hounds did not venture to bark, but kept quite close to the Hottentots; his Oxen and Horses sighed deeply, frequently hanging back, and pulling slowly with all their might at the strong straps with which they were tied up to the waggon. They also laid down on the ground and stood up alternately, as if they did not know what to do with themselves; and this, as he observes, from pure instinct, having never seen a Lion in their lives.

The Lion is not very serviceable when dead; his hide is much inferior to that of the Cow, and seldom used, unless to supply the want of a better. The farmers near the Cape of Good Hope sometimes use it as upper-leathers for their shoes, and say it is both pliable and lasting.



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TIGER.

THE ROYAL TIGER.

GENERIC CHARACTERS.

Six cutting, and two canine teeth in each jaw.

Five toes on the fore-feet, four on those behind.

Claws sharp and hooked, lodged in a sheath, capable of being extended or drawn in at pleasure.

Head round, visage short, tongue rough.

SYNONIMS.

FELIS TIGRIS, *Linn. Syst.* 61.

TIGER, *Pennant Syn. Quad.* 121.

TIGRIS, *Plin. lib. viii. c. 18. Gefner Quad.* 936. *Raii Syn. Quad.* 165.

FELIS FLAVA, *Briffon Quad.* 194.

LE TIGRE, *de Buffon, ix. 129. tab. ix.*

THE Royal Tiger is certainly the most beautiful creature of the Cat kind; but, as if it were to shew the danger of attachment to beauty, merely for its own sake, it is at the same time the most cruel, rapacious, and destructive animal in the creation.

The size of the Royal Tiger is often superior to that of the Lion; its usual length, when full grown, is about nine feet, and it frequently is four feet ten inches in height; notwithstanding which, it is possessed of as much agility as the Cat, united with prodigious strength; thus qualified, it is no wonder that it carries dread and devastation wherever it goes. The Tiger resembles the Cat in its general form. Its colour is a full yellow, inclining to fawn colour, which is deeper on the back, and becomes gradually lighter as it approaches towards the belly, where it is white, as are also the throat and the inside of the legs; the whole body is beautifully marked with deep black

THE ROYAL TIGER.

stripes or bands, which run in the same direction as the ribs, from the back down to the belly, and form a striking and elegant contrast with the yellow: round each eye there is a white space spotted with black, and a stripe of the same colour extends along the cheeks, from the ear to the throat; the legs are yellow, with some black stripes on them, the hair is beautifully glossy and smooth, and looks like very fine velvet.

The Royal Tiger may be considered as one of the scarcest of Quadrupeds, and much less diffused than the Lion: it is a native of the East Indies, where it is only to be found in the warmest regions.

The Tiger is seldom heard to roar, with much violence, in a state of captivity; but, when he ranges at large the tyrant of the forests, his cry is horrible beyond description. It begins by intonations and reflections which are at first deep, melancholy, and slow; these presently become more acute, when suddenly collecting himself, he sends forth a violent cry, interrupted by long tremulous sounds, which make a distracting impression upon the mind. The night is the time when his roarings are usually heard, the horror of which is increased by the silence and darkness, and his cries are repeated by the echoes of the mountains.

At the dreaded appearance of this cruel monster, which always seems to tremble with a savage joy at the sight of the animal whose blood he is about to drink, most other creatures think only of flight, which is often unavailing: if the Bear has not time to ascend a tree, he is dead: the Dog has scarcely a moment allowed him to utter the cry of despair, he is instantly seized and torn in pieces: a large Bull is presently overthrown, and dragged away with ease: the wild male Buffalo indeed will dart at his enemy, but if he is alone, he soon falls a victim to his cruel antagonist^(A).

“A peasant, in the Sundah Rajha's dominions, had a Buffalo fallen into a quagmire, and while he went for assistance, a large Tiger, with its single strength, drew forth the animal, though the united force of many men was insufficient for the purpose. The first object which presented itself to the people on their return to the place, was the Tiger, who had thrown the

(A) D'Obfonville.

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Buffalo over his shoulder, as a Fox does a Goose, and was carrying it away, with the feet upwards, towards its den; as soon as it saw the men, it let fall its prey, and instantly fled to the woods: but it had previously killed the Buffalo, and sucked its blood. The Indian Buffalo usually weighs a thousand pounds, which is twice the weight of our black cattle; from hence some idea may be formed of the enormous strength of this cruel and rapacious animal, which could run off with a creature twice its own weight with such apparent ease (A)."

Father Tachard gives an account of a combat he saw between a Tiger and three Elephants at Siam, which we shall insert, to furnish a more complete idea of the amazing strength and courage of this terrible animal. A lofty palisade was built with bamboo cane, an hundred feet square; and in the midst of this place were three Elephants appointed for combating the Tiger. Their heads and a part of their trunks were covered with a kind of armour, to defend those parts from the claws of their fierce adversary. "As soon," says he, "as we arrived at the place, a Tiger was brought forth from its den, of a size much larger than we had ever seen before. It was not at first let loose, but held with cords, so that one of the Elephants approaching, gave it three or four terrible blows, with its trunk, on the back, with such force, that the Tiger was for some time stunned, and lay without motion, as if it had been dead. However, as soon as it was let loose, and at full liberty, although the first blows had greatly abated its fury, it made at the Elephant with a loud shriek, and aimed at seizing his trunk. But the Elephant, wrinkling it up with great dexterity, received the Tiger on his great teeth, and tossed it up into the air. This so discouraged the furious animal, that it no more ventured to approach the Elephant, but made several circuits round the palisade, often attempting to fly at the spectators. Shortly after, three Elephants were sent against it, and they continued to strike it so terribly with their trunks, that it once more lay for dead; and they would certainly have killed it, had not there been a stop put to the combat."

"From this account, we may readily judge of the strength of this animal, which, though reduced to captivity, and held by cords, though first disabled,

(A) Captain Hamilton.

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and set alone against three, yet ventured to continue the engagement, and even that against animals covered and protected from its fury."

Mr. D'Obsonville relates, that he had occasion to traverse one of the defiles of High Canara, situated between Boncombondi and Baffovapatnam, in company with Mr. de Maissonpré: at this place they were informed a Royal Tiger had, for some time past, committed dreadful ravages. "When we came to the place," says he, "we saw him lying in the sun; and, as we approached at the distance of about twenty paces, he instantly arose; but, seeing many of us well armed, he climbed with agility up the other part of the mountain, disturbed but not afraid. He appeared to us nearly as high as a middle-sized poney. As we were accompanied by six chosen seapoys, it is more than probable we might have killed him, but we were encumbered with horses, and on a stony road, not above eight or ten feet wide, at the edge of which was a precipice: it would, therefore, have been very imprudent to have attacked an animal which, though wounded, would not have fallen unrevenged.

"We had not gone above ten paces from the place where the Tiger had lain, before we saw a tolerably large Dog, with long hair, come from behind a rock, the master of which had perhaps been devoured: the poor animal jumped upon us, caressed us exceedingly, and would not leave us."

Many intelligent Indians assert, that the Tiger prefers the Dog to any other food, and that they will sometimes steal them by night from houses where there are other animals, which they will leave untouched. It has also been observed, that Dogs, even when young, and consequently inexperienced, have been seized with an universal trembling at the sight of a Tiger, and seemed sensible of the great danger they were in. Perhaps that innate and almost unconquerable repugnance between the Dog and Cat, the latter being nearly related to the Tiger, is only the remains of this instinctive antipathy.

The Tiger is fierce without provocation, and cruel without necessity; when he meets with a herd of cattle, he levels all with indiscriminate cruelty, and hardly finds time to appease his appetite, while intent on satisfying the malignity of his nature; if undisturbed, he plunges his head into the body of the animal up to the eyes, as if it were to satiate himself with blood, of

THE ROYAL TIGER.

which he drinks every drop before he tears the body in pieces^(A). He does not pursue his prey, but lurks among the bushes, on the sides of rivers, from whence he springs or bounds on the unhappy victim with an elasticity and from a distance scarcely credible: if he misses his aim, he instantly makes off, and does not renew the attack. "I was informed, by very good authority," says Mr. Pennant, "that, in the beginning of this century, some ladies and gentlemen, being on a party of pleasure, under a shade of trees, on the banks of a river in Bengal, observed a Tiger preparing for its fatal spring; one of the ladies, with amazing presence of mind, laid hold of an umbrella, and furling it full in the animal's face, which instantly retired, and gave the company opportunity of removing from so terrible a neighbour^(B)."

Another party, the memory of one of which is still dear to those who knew his worth, had not the same good fortune. The event is thus related, by a gentleman who was an eye-witness of the horrid scene. "Yesterday morning, Dec. 22, 1792, Mr. Downey, Lieut. Pyefinch, poor Mr. Munro^(C), and myself went on shore, on Saugur Island, to shoot Deer. We saw innumerable tracks of them, as well as of Tigers; notwithstanding which we continued our sport till half past three, when we sat down on the edge of the jungle, to refresh ourselves, and had just commenced our meal, when we were told a fine Deer was within six yards of us: Mr. Downey and I immediately jumped up, to take up our guns; I had but just laid hold of mine, when I heard a roar like thunder, and saw an immense Royal Tiger spring on the unfortunate Munro, who was sitting down: in a moment his head was in the beast's mouth, and he rushed into the jungle with him, with as much ease as I could lift a kitten; tearing him through the thickest bushes and trees, every thing yielding to his monstrous strength. The agonies of horror, regret, and, I must say, fear, (for there were two Tigers, a male and a female), rushed on me at once; the only effort I could make, was to fire at him, though the poor youth was still in his mouth. I relied partly on Providence, partly on my own aim, and fired a musket. The Tiger staggered and seemed agitated, which I took notice of to my

(A) Pennant.

(B) Pennant's Syn. Quad, 168.

(C) Only son of Sir Hector Munro, K. B.

THE ROYAL TIGER.

companions. Mr. Downey then fired two shots and I one more. We retired from the jungle, and a few minutes after, Mr. Munro came up to us, all over blood, and fell. We took him on our backs to the boat, and got every medical assistance for him, from the Valentine East Indiamen, but in vain; he lived twenty-four hours in the utmost torture; his head and skull were torn and broke to pieces, and he was wounded by the claws, all over his neck and shoulders; but it was better to take him away, though irrecoverable, than leave him to be mangled and devoured.

“ I must observe, there was a large fire blazing close to us, composed of ten or a dozen whole trees; and eight or ten of the natives were about us; many shots had been fired near the spot, and there was much noise and laughing at the time; but this ferocious animal disregarded all.

“ The human mind cannot form an idea of the scene; it turned my very soul within me. The beast was about four feet and a half high, and nine long. His head appeared as large as an Ox's, his eyes darted fire, and his roar, when he first seized his prey, will never be out of my recollection. We had scarcely pushed our boat from that cursed shore, when the Tigress made her appearance, raging mad almost, and remained on the sand, as long as the distance would allow me to see her.”

Thus is the Tiger the scourge of the countries where he is found; he fears neither man nor beast, and will attack the Lion, Elephant, and Rhinoceros, and often with success. His spirit seems untameable, neither force nor kindness can make the least impression on his stubborn nature. The caresses of his keeper have no influence on his heart of iron; he snaps at the hand which feeds him, and seems to consider every living object as destined for his prey. When the Tiger expresses his resentment, he shews his teeth, moves the muscles and skin of his face, and sends forth horrible shrieks.

Hunting the Tiger is a favourite amusement with some of the eastern princes, who go in search of them, attended by considerable bodies of men well mounted and armed with lances; as soon as they are roused, they are instantly attacked by pikes, arrows, and sabres on all sides, and presently destroyed; but this diversion is always attended with danger, for if the Tiger

THE ROYAL TIGER.

feels himself wounded, he seldom retreats without sacrificing some one to his vengeance.

The female Tiger goes three months with young, and produces several at a litter^(A): it is therefore no wonder that the endeavours of the inhabitants, to extirpate this cruel and destructive creature, prove ineffectual. Whilst she has young ones to bring up, she exceeds, if possible, her usual rapacity: if her young are taken from her during her absence, she pursues the robber with inconceivable fury, who, to save a part, is contented to lose a part, and lets fall one of her cubs, which she immediately carries to her den, and instantly renews the pursuit; he then drops another, and by the time she has placed that in safety, he generally gets clear off with the remainder. If she cannot find any of her young, she then becomes desperate; boldly approaching towns, and committing horrid slaughter wherever she goes.

The only benefit man derives from this dreadful animal is the skin, which is held in high esteem all over the East, and particularly in China, where the mandarins cover their seats of justice with it, and apply it to other purposes: perhaps it acquires an additional value from the difficulty and danger with which it is procured.

(A) D'Obsonville.



LEOPARD

THE LEOPARD.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on the fore-feet; four on those behind.

Claws hooked, sharp, and lodged in a sheath, capable of being extended or drawn in at pleasure.

Head round, visage short, tongue rough.

SYNONIMS.

UNICA, *Caii Opusc.* 42. *Gefner Quad.* 825.

LE LEOPARD, *de Buffon*, ix. 151. *tab.* xiv.

LEOPARD, *Pennant Syn. Quad.* 123.

THE Leopard emulates the Tiger in the elegance of his form, and the beautiful marking with which his skin is adorned; the colour of his hair is a lively yellow, he is ornamented on the back and sides with small black spots, which are disposed in circles not far distant from each other; his face and legs are marked with single black spots; the hairs on the breast and belly are longer than those on the rest of the body, and they are of a whitish colour; the tail is yellow, and adorned with oblong black marks; the length of the body is four feet from the nose to the insertion of the tail, which is two feet and a half. This animal seems to be subject to greater variety of colour, than is usually observed in wild creatures; indeed it is seldom that two of them are seen exactly alike.

The general appearance of the Leopard is fierce, his eye is restless, and his countenance cruel; his motions are short and precipitate; he attacks and devours every animal he meets, sparing neither man nor beast; and when those

THE LEOPARD.

which are wild, are insufficient to satiate his cruel appetite, he descends with great numbers from their lurking places, and makes dreadful destruction among the numerous herds of cattle, which adorn the fertile meadows of the lower Guinea. He tears his prey both with teeth and claws, and although he is constantly devouring, his appearance is always thin (A.)

The method generally used by the negroes to take this animal, is to dig pits and cover them slightly over with slender hurdles, on which a piece of flesh is placed as a bait.

The flesh of the Leopard is eaten by the negroes, and is said to be as white as veal, and as well tasted.

The skins are brought into Europe, and held in high estimation; some of the most beautiful being sold for eight or ten guineas each.

The Leopard inhabits Senegal, Guinea, and most parts of Africa. He delights in the thickest forests, and frequents the borders of rivers, to wait for animals which come there to quench their thirst.

An ingenious French philosopher (B) remarks, that nature employs clashing oppositions of colour, and other ominous signs to express the characters of savage and dangerous animals of all kinds, and to warn man of their approach or presence. Thus, the Lion announces his vicinity by tremendous roarings, which resemble thunder, and by the vivid and instantaneous flashes which proceed from his eyes in the dark: the Tiger, Panther, &c. are rendered conspicuous by their beautiful colour and markings; the cries of birds of prey are shrill and piercing; the Gnat hums, and the Wasp is speckled like the Tiger, with black stripes on a yellow ground. If there be any truth in this observation, it is in no instance more remarkable than in the animal we have just been treating of, the beautiful yellow colour of whose skin, adorned as it is with elegant black markings, forms a contrast which renders him conspicuous at a considerable distance, and gives the object of his pursuit some chance of escaping from his fury.

A variety of this animal is found in the East Indies, which has been called the Lesser Leopard. Its general colour is much paler than that of the Leopard

(A) Pennant.

(B) De Saint-Pierre.

THE LEOPARD.

of Senegal, and inclines more to ochre; the face is spotted with black, as are the breast and belly, but the spots are smaller: the belly is white, spotted with black; the back, sides, and rump, are yellowish, and beautifully marked with circles of black spots; the tail, which is short in proportion to the length of the body, tapers to a point.

The late Sir Ashton Lever had one of these animals, which he kept in a cage at Leicester House. We have often admired and caressed this creature, who always seemed pleased and gratified by the attention paid it, purring and rubbing its sides against the cage like a cat. Sir Ashton presented it to the royal menagerie in the Tower, in which situation we saw it, after an interval of more than a year, notwithstanding which separation, it appeared perfectly to recognise its old acquaintance, and began to renew its caresses as usual; hence it appears, that this animal is capable of recollection and attachment.





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HUNTING LEOPARD.

THE HUNTING LEOPARD.

GENERIC CHARACTERS.

Six cutting, and two canine teeth in each jaw.

Five toes before, four behind.

Sharp hooked claws, lodged in a sheath, that may be extended or drawn in at pleasure.

Round head, short visage, and rough tongue.

SYNONIMS.

FELIS JUBATA, *Schreber*, cv.

LE GUEPARP, *de Buffon*, xiii. 249.

LE LEOPARD, *Voy. de Boullaye-le-gouz*, 248.

HUNTING LEOPARD, *Pennant Hist. Quad.* vol. i. p. 284.

THIS creature, notwithstanding the natural ferocity attached to its genus, is frequently tamed by the Indian hunters, and rendered subservient to their interests, in pursuing Antelopes, Jackalls, and other beasts of chase.

It is about the size of a large Greyhound, with a small head, short ears, narrow chest, and long legs. Its face, chin, and throat, are of a light brown colour, inclining to yellow; the irides of its eyes are of a pale orange; the end of the nose is black. From each corner of the mouth, to that of each eye, runs a dusky line: the ears are tawny, and marked with a brown stripe. The body is of a tawny brown, diversified with round black spots; the insides of the legs, however, are plain, and the belly is white. The hair on the top of the neck is longer than the rest; the tail is of a considerable length, of a reddish brown colour, and marked on the upper surface with black spots.

THE HUNTING LEOPARD.

The Hunting Leopard, when properly trained for the chase of Antelopes, is hood-winked, and secured in a small kind of waggon, till it approaches the herd; when, being set at liberty, it winds slowly and cautiously along the ground, occasionally stopping and concealing itself till it gains an advantageous situation. It then darts on the unsuspecting animals with astonishing agility, and generally overtakes them by the rapidity of its bounds; but, if its first efforts, consisting of five or six surprising leaps, happen to prove ineffectual, it prudently relinquishes the fruitless pursuit, and, after stopping to regain its breath, readily returns to its master.

This species of Leopard is known in India by the name of the Chittah.



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CAT.

THE CAT.

GENERIC CHARACTERS.

Six cutting teeth, and two canine teeth, in each jaw.

Five toes before, four behind.

Sharp hooked claws, lodged in a sheath, that may be exerted or drawn in at pleasure.

Round head, and short visage: rough tongue.

SYNONIMS.

(WILD CAT.) *CATUS SYLVESTRIS*. BOUMRIETER. *Gefner Quad.* 325.

CATUS SYLVESTRIS, *FERUS VEL FERALIS*, *EQUES ARBORUM*. *Klein Quad.* 75.

WILDE KATZE. *Kram. Austr.* 311.

FELIS SYLVESTRIS. *Briffon Quad.* 192.

KOT DRIKI, ZBIK. *Rzacinski Polon.* 217. *Schreber*, cvii. A. cvii. B.

LE CHAT SAUVAGE. *De Buffon*, vi. 1. *tab.* i. *Brit. Zool.* i. 67.

COMMON CAT. *Pennant Hist. Quad.* vol. i. p. 295.

IN the gentle habits of our common domestic Cat, we have a striking exhibition of the conciliatory effects of kind usage, even on dispositions the most ferocious.

This demure looking creature, sitting so placidly by the fireside, is no other than a descendant of the *Ferus*, or Wild Cat, the most fierce and destructive animal which yet continues to range the woods and wilds of these islands, destroying poultry, lambs, and kids, as well as vermin and different kinds of game.

THE CAT.

The Wild Cat, which has been called the British Tiger, though found in every quarter of the globe, is three or four times as large as the House Cat, and very strongly made, with tremendous claws and teeth. It lives mostly in trees, feeding chiefly by night; for prowling at which season it seems peculiarly adapted. Not having the delicate scent of the Dog, it depends only upon its sight, lying closely in ambush, and attacking animals by surprise. The pupil of its eye is capable of great contraction and dilatation: it is narrow, like a line, during the glare of day; but round and wide in the dark, which gives it great advantage in discovering and seizing its prey. Its long, soft hair, is of a yellowish white colour, and of a deepish grey; really, though rather indistinctly, disposed like the streaks of the Tiger's skin.

How changed from the wild animal is that which we rear in our houses! but which retains enough of its sanguinary disposition, to effectually rid us from those destructive and troublesome little creatures, by which we should otherwise be overrun. In the destruction of these vermin, it gives a disgusting proof of its native cruelty; for, when it has got them within its clutches, it affects to let them escape, and seems to sport with the feelings of the little victims, till, by a *coup de grace* from its jaws, it relieves them from their horrors, and gluts itself with blood.

While the Cat of the woods shews so very little diversity of colour in its fur, it is well known that the House Cat, like other animals changed by domestication, exhibits the greatest variety. This creature, when young, is extremely playful; but, with age, it loses its sportive habits, and puts on the appearance of great gravity and sedateness. When pleased it purrs, moves its tail, and rubs itself against the person who takes notice of it. It is also fond of rubbing itself against those who carry any kind of perfume, and is fond of the smell of valerian, marum, catmint, and certain aromatics, to distraction; whilst it shews the greatest dislike to bad smells. Its sleep is very light; it is extremely vigilant, and so artful as to imitate the appearance of death, for the purpose of deceiving the unsuspecting object of its prey. When irritated it sets up its back, lashes with its tail, spits, hisses, and strikes with its foot.

THE CAT.

The Cat, though so useful a domestic, seems perfectly untractable, or incapable of any attachment unconnected with its own ease, comfort, or gratification. Its dissimilarity of character has been thought to be portrayed in the obliquity of its movements, and the ambiguity of its looks; but this delicate, cleanly, and voluptuous animal, seeking the softest and warmest places to repose on, though so active and fierce, is timid and mistrustful, dreading blows and every violence; feeling, as it were, conscious of its weakness and the tenderness of its skin, which also may account for its great antipathy to water, humidity, and cold. Though peculiarly fond of fish, it very seldom ventures to wet its foot by seizing them in their own element; though instances have sometimes occurred to the contrary. The Cat, different from other carnivorous animals, has its claws retractile. It can bend them backwards, and fix them between its toes, when it has no occasion for them. This preserves their edge and their point, and enables the animal to tread without noise, and to touch softly. The Cat's eyes shine in the dark; its hair, when rubbed, emits electric sparks, and, on the approach of a storm, it is observed to shew its sensibility of the change in the atmosphere, by its rubbing and washing its face with its fore feet.

Cats are about eighteen months in acquiring their full growth; but are capable of propagation in twelve, and retain this faculty nine or ten years, nearly the term of their life. The female goes with young from fifty-five to fifty-eight days, producing four or five at a litter.

The old popular tale of Whittington and his Cat may be a fiction, or not traceable to any good authority; but this animal was once of such great account in our island, that we cannot but suppose that the creature, which multiplied so fast, must then have been but lately imported. In the tenth century, the Welch prince *Hoel Adda*, or Howel the Good, among his laws relating to the prices, &c. of animals, included that of the Cat, and described its necessary qualities. The price of a kitten before it could see was to be a penny; till it caught a mouse, twopence; when it commenced mouser, fourpence; which at that day were considerable sums: but it was required that it should be perfect in its senses of seeing and hearing, be a

THE CAT.

good mouser, have the claws whole, and be a good nurse; and, if it failed in any of these qualities, the feller was to forfeit to the buyer the third part of its value. If any one stole or killed the Cat that guarded the Prince's granary, he was to forfeit a milch ewe, its fleece and lamb; or as much wheat as, when poured on a Cat suspended by its tail, (the head touching the floor,) would form a heap high enough to cover the whole creature to the tip of the tail.



OCELOT

&

LYNX.

THE OCELOT.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes before; four behind.

Claws sharp and hooked, lodged in a sheath that may be exerted or drawn in at pleasure.

Head round, visage short, tongue rough.

SYNONIMS.

FELIS SYLVESTRIS AMERICANUS, TIGRINUS, *Seb. Mus. i. 47. tab. xxx. fig. 2* and *177. tab. xlviii. fig. 2.*

TLACÓOZELOTL; TLACOCELOTL. CATUS PARDUS MEXICANUS, *Hernandez Mexican. 512.*

L'OCELOT, *de Buffon, xiii. 239. tab. xxxv. xxxvi.*

THE male Ocelot is a very beautiful quadruped, the elegant variety of the stripes and spots with which it is adorned, added to the richness of its colours, rendering it a most charming creature. It is two feet and a half in length, from the end of the nose to the insertion of the tail (A.) The head, back, upper part of the rump, and tail, are of a bright tawny colour; the top of the back is adorned with a black stripe, which extends the whole length from the head to the tail; the forehead is spotted with black, and a stripe of the same colour extends from the corners of the eyes to the nostrils; the sides are whitish, beautifully marked with long stripes of black, extending lengthways, which are hollow, and tawny in the middle, and sprinkled with small black spots: others, of the same shape and colour, extend from the

(A) Mr. Buffon says it is four feet long, but this appears to be a mistake.

THE OCELOT.

neck towards the shoulder point; and the rump is marked in the same manner. The legs are whitish, and marked with small black spots; the tail is marked with black spots near the base, and black lines towards the extremity. The colours of the female are in general fainter, though the markings are like the male.

The Ocelot is strongly made, and very voracious; it is fearful of mankind, but preys on young Calves (A) and different kinds of game. It frequents mountainous places, where it lurks among the leaves of trees, extending itself along the branches, as if it were dead, till the Monkeys (B,) tempted by their natural inquisitiveness, approach too near to examine it, and fall a sacrifice to their rash curiosity. It is afraid of Dogs, and flies to the woods when it is pursued by them. Like the Tiger, it prefers the blood of animals to their flesh, which it leaves untouched; great numbers, therefore, are destroyed, to satisfy its hunger.

The Ocelot is impatient of captivity: when under confinement, it is in perpetual motion, and nothing can tame the fierceness of its nature: it returns the caresses of its keeper by savage growls, which sufficiently indicate its vindictive spirit.

This animal inhabits Mexico, the neighbourhood of Carthagena, and Brazil.

(A) Dampier's Voy. ii. 62.

(B) Hernandez Mex. 514.

THE LYNX.

GENERIC CHARACTERS.

The same as the Ocelot.

SYNONIMS.

ΛΥΓΞ, *Ælian*. lib. xiv. c. 6. *Oppian Cynegetica*, iii. 84.

CHAUS, *Plin.* lib. viii. c. 19. LUPUS CERVARIUS, c. 22.

LUPUS CERVARIUS, LYNX, CHAUS, *Gesner Quad.* 677, 678.

LYNX SIVE LEUNCIA, *Caii Opusc.* 50.

LYNX, CATUS CERVARIUS ANGLICE, THE OUNCE, *Raii Syn. Quad.* 166.

FELIS LYNX, *Linn. Syst.* 62.

WARGLO, KATTLO, *Faun. Suec.* No. 10, 11.

CATUS CERVARIUS, *Briffon Quad.* 199.

RYŚ, OSTROWIDZ, *Rzaczynski Polon.* 222.

LUX, *Kramer Austr.* 311. *Ridinger Wilden Thiere*, 22.

LE LYNX, OR LOUP CERVIER, *de Buffon*, ix. 231. *tab.* xxi.

THE Lynx is readily distinguished from all other animals of the Cat kind by the length of its ears, which are tufted at the end with long black hairs: this is a character peculiar to these animals. The shortness of the tail, which does not exceed six inches in length, though the animal sometimes measures four feet six inches from the end of the nose to the insertion of the tail, is another mark of distinction. The extremity of the tail is black. The body of the Lynx is covered with long, soft hair, which is of an ash-colour, tinged with red, and marked in some parts, particularly on the thighs, with dusky spots, which are more or less visible in different individuals, and in some scarcely discernible. The throat and belly are white. The colour is

THE LYNX.

subject to great variety, and the farther north this animal is bred, the fur is proportionably whiter, and the spots are more distinct. It becomes the more valuable on this account. The skin of the most elegant variety, which is called the Irbys, and is taken near the Lake Balckash, in Ufbec Tartary, sells in that country for one pound sterling. The skin of the male is more spotted than that of the female. The furs of these animals are much esteemed for their warmth and softness, and great numbers of them are imported from North America and the northern parts of Europe and Asia.

The aspect of the Lynx is considerably less savage than that of the Panther or Ounce; the eyes are of a pale yellow, and surrounded by a circle of white hair; the hair under the chin is long and full; the legs and feet are very thick and strong.

The Lynx brings forth two or three young ones at a litter: it is very long lived: it climbs trees in pursuit of its prey, which it follows to the extremity of the branches. It feeds on Weasels, Ermines, and Squirrels, which are unable to escape from it. Like the Glutton, it lies concealed on the lower branches of a large tree, watching the approach of the Fallow Deer, Hare, and other animals, on which it darts, seizing them by the throat, when it sucks their blood, and then leaving the carcase untouched, goes in search of other game. It will not attack mankind. Its sight is very quick and penetrating, and it distinguishes its prey at a great distance. It seldom eats more of a Goat or a Sheep than the liver, brain, and intestines; and, like the Wolf, will sometimes dig under the threshold of the door, to gain admission into the sheepfold.

When the Lynx is attacked by a Dog, it lies down on its back, striking desperately with all its claws, and often obliges its enemy to retire.

It howls so like the Wolf, that, when heard at a distance, it is easily mistaken for that animal.

The Lynx inhabits the vast forests of the north of Europe, Asia, and America; but it is not found in India, notwithstanding the poets have harnessed them to the chariot of Bacchus, when he conquered that country: it even prefers cold climates to those which are temperate.



Wheeler del.

Engraved by W. Darton, J. Harvey & W. Bulch, March 1836.

L. Gooden Sculpt.

BROWN BEAR.

THE BROWN BEAR.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot.

In walking, rests on the hind feet, as far as the heel.

SYNONIMS.

URSUS CAUDA ABRUPTA, *Linn. Syst.* 69.

BIORN, *Faun. Suec.* No. 19.

Αἰνις, *Oppian Cyneget.* iii. 139.

NIEDZWIEDZ, *Rzaczynski Polon.* 225.

BAR, *Klein Quad.* 82.

L'OURS, *de Buffon*, viii. 248. *tab.* xxxi. xxxii.

NATURALISTS and travellers have differed very much in their accounts of this animal, so as, in many instances, even to have contradicted each other. This seems to arise from their not having properly distinguished the different kinds of Bears, in consequence of which, they have ascribed to one the qualities of another. All agree, that the White or Polar Bear is a distinct species from both the Brown and Black Bear; but some (A) assert that the two latter are only varieties of the same species, whilst others (B) contend that they are quite distinct, and differ from each other both in their inclinations and appetites. White land Bears are also found in Great Tartary, Muscovy, Lithuania, and other northern countries; but as Bears are likewise found in the same places, whose colour is an intermixture of brown and white,

(A) Mr. Pennant, &c.

(B) Buffon, &c.

THE BROWN BEAR.

Mr. Buffon considers them as varieties of either the brown or black species. However the fact may be, the Brown Bear, which is the subject of the present account, is by far the most common, and is found of two sizes, the one large, the other small.

The large Brown Bear is generally about six feet in length; his head is long, his eyes small, and his ears short, in proportion to his size; his skin is hard and thickly covered with long coarse hair, notwithstanding all which, he possesses the senses of seeing, hearing, and feeling, in high perfection: the internal surface of his nose being very extensive, it is probable that his smell is more exquisite than that of any other animal: his limbs are strong, thick, and clumsy; his feet large, and furnished with a short heel bone, which makes part of the sole of the foot; his tail is very short, and hardly visible. The Brown Bear is savage and solitary; he destroys cattle, and feeds even on carrion; his general food, however, is roots, fruits, potatoes, corn, and other vegetables. He is very fond of peas^(A), “of which he will tear up great quantities, and, beating them out of the shells on some stone or hard spot of ground, eats the grain, and carries off the straw.” When he attacks an adversary, he seldom makes use of his teeth, but strikes very strongly with his fore feet like a Cat, and, seizing his enemy between his paws, presses him against his breast with so much strength, that he almost instantly squeezes his opponent to death. The voice of the Bear is a deep harsh murmur, which he heightens by grinding his teeth, when he is enraged. Highly irascible, and capriciously furious, he is never to be trusted, however gentle and placid towards his owner he may appear, being always treacherous and vindictive. Although his external appearance is clumsy and stupid, he is, notwithstanding, sufficiently docile, to be taught to dance in a rude and awkward manner, provided his education, for this purpose, commences when he is young, and that he is kept in continual restraint. It is impossible to tame an old Bear, or keep him in any degree of subjection; perverse, savage, and uncontrollable in his nature, he never betrays any fear of danger, and obstinately resists every attempt to subdue his ferocity. He will not turn out

(A) Pennant.

THE BROWN BEAR.

of his path at the sight of a man, or even endeavour to shun him ; but it is asserted, that he is so far surpris'd and confounded by a particular sort of whistle, as to rise upon his hind feet, which is the precise time to shoot and endeavour to kill him.

The Brown Bear inhabits the most dangerous precipices of unfrequented mountains ; a cavern which has been hollowed by time, or the cavity of some old enormous tree, situate in the most gloomy and retired parts of the forest, are the places he fixes on for his den. To one of these he retires at the approach of winter, and there passes some weeks in gloomy solitude, without provisions, and almost without motion. He does not, however, appear to be totally deprived of sensation, like the Bat and some other animals, but seems to subsist on the superfluity of fat acquired before his retirement, and does not feel the calls of returning appetite, until that supply is exhausted, and he is become lean ; he then issues forth in search of food, and nothing comes amiss to him ; he makes the best use of his time in the summer, to supply the loss he has sustained by his winter abstinence, and by the beginning of autumn, he becomes so fat, as to be hardly able to walk ; at this period the fat on his sides and thighs is sometimes ten inches thick. It has been said that the male quits his winter retreat at the end of forty days, but that the female continues in it during four months, till she has brought up her young. Mr. Buffon thinks this highly improbable, as the female, having young now to nourish with her milk, stands in much greater need of supply than the male ; however this may be, it is certain that the females, after conception, retire into the most secret and solitary places, lest the male should devour the young, which they never fail to do, if they find them. It is affirmed, as matter of fact, that among the many hundreds (A) of Bears killed in America during winter, which is the breeding season, scarcely one female is found, so impenetrable is their retreat during that period. (B) The female goes with young from six to seven months, and, previous to her confinement, provides

(A) Out of five hundred Bears that were killed in one winter, in two counties of Virginia, only two females were found, and those were not pregnant. *Lawson* 117, quoted by Pennant.

(B) Buffon's Supplement.

THE BROWN BEAR.

a warm bed of hay and moss at the bottom of her den. She generally produces one, two, or three, at a litter, but never more. When the young ones are first whelped, they are yellow, with a white mark round the neck, and do not look much like Bears; their eyes are closed during four weeks; at first they are about eight inches long, and at the end of three months fourteen or fifteen; at that age they appear almost round, and their snout is very sharp and pointed. They do not acquire much strength, till they are full grown, before which time they have lost their white hair, which gradually decreases, and the yellow is changed into brown. The male and female always live in separate dens, and sometimes fight furiously when they meet, growling horribly at each other.

The Bear is extravagantly fond of honey, in search of which he will climb hollow decayed trees, which he ascends and descends with surprising agility.

This animal is not confined to any particular country, but is found in almost all the high mountains, forests, and deserts of the earth.

The flesh of the Bear is with some held in high estimation, particularly the hinder legs made into hams, and the feet, which are esteemed great delicacies. The skin is the most valuable of all coarse furs; the fat is much used, and yields a great quantity of oil, which, if properly prepared, is equal in goodness to the best oil olive. The method made use of to separate and prepare it, is thus described by Du Pratz. "The flesh and fat are boiled together, and then the oil is separated; this done, it is purified by throwing into it, while hot, a very large quantity of salt and water; a thick smoke arises, which carries off the disagreeable smell of the fat; when the smoke is evaporated, they pour the grease, while it is still warm, into a pot, where it is left to settle during eight or ten days, at the expiration of which a clear oil is found swimming at the top; this is taken off with ladles, and is perfectly sweet and fine. Under it remains a lard, as white as Hogs-lard, but rather softer, which has neither a disagreeable smell nor taste." This account is confirmed by Mr. Dumont, who says, that the savages of Louisiana carry on a considerable trade with the French in this article; that the oil never loses its fluidity, except in the time of intense frosts, when it becomes clotted, is of a dazzling whiteness, and is then eaten on bread, instead of butter. Bears

THE BROWN BEAR.

are excellent swimmers, while they retain their fat, and cross the largest rivers with perfect ease.

The chase of the Bear is attended with little or no danger, if properly conducted ; and, as it is highly lucrative, when successful, it is much practised in those parts where the animal is found. Other means are likewise used to take them. In Sweden, Norway, and Poland, they mix spirits with honey, and leave this composition in the Bear's way ; the animal drinks eagerly of it, and, becoming intoxicated, is easily subdued. In Canada and Louisiana, where the Black Bears usually reside in the decayed parts of old trees thirty or forty feet high, they kindle a fire at the bottom of the tree, by the smoke of which the family, consisting generally of a female and her cubs, are presently disturbed ; the mother descends first, and is killed before she reaches the ground ; the cubs soon follow, and are easily secured, by throwing a noose round their necks ; they are then all carried home, the young ones are either preserved and brought up, or killed for the sake of their skin and flesh, which is very delicate and good.

In the northern parts of Siberia and Kamtschatka^(A), the Bears are neither large nor fierce ; they are in general quiet and inoffensive, unless they happen to find one of the natives asleep, when they often tear the scalp from the back part of their heads, and sometimes lacerate the fleshy parts, but never eat them. People are frequently met with, who have experienced this uncivil treatment, and those who have been thus wounded are called Dranki. Although the Bears are so numerous in Kamtschatka, as to cover the fields in summer like cattle, they never hurt the women, but accompany them like tame animals, when they go to gather berries, which indeed the Bears sometimes rob them of, but do them no other harm. They are very fond of fish, and descend from the hills to the proper places for catching them, which are the mouths of large rivers, into which the fish enter in vast shoals at certain seasons of the year. At first, the profusion is so great, that they only eat and suck the bones of the heads, and will not meddle with the bodies ; but, as they become scarcer, they are glad to return to what they

(A) The following particulars are extracted from the History of Kamtschatka, translated by Dr. Greive.

THE BROWN BEAR.

refused in the time of plenty. They often steal fish from the Cossacks, although a woman is left to watch them, but they never offer her any violence.

Many devices, for killing Bears, were practised by the inhabitants of Kamtschatka, before they knew the use of firearms. The following are ingenious, and, we trust, will prove entertaining. Having found the Bear's habitation, they cut several billets of wood, with which they blocked up the entrance of the den; the Bear, to prevent his being shut up, never failed to draw these in. More billets were then introduced in the same place, and these, in their turn, were drawn in by the Bear, till, at length, by frequent repetition of this procedure, he was so straitened in his den, that he could scarcely turn himself; the hunters then dug down from above, and dispatched him with their spears. The Koreki use other methods to catch the Bear: for this purpose, they single out a tree which is crooked above, to which they fasten a noose, and place a proper bait behind it; which the animal endeavouring to seize, is held fast by the head or paw. Heavy logs of wood are sometimes placed in such situations, as to fall with the slightest touch, and crush the Bear, as he passes under them. Sometimes they place a board, with many iron hooks driven into it, in the Bear's track, and near this board they place something which will easily fall down, in such a situation that the Bear must touch it as he passes by; terrified by its fall, the Bear runs with great force on the board, and, finding one paw wounded and detained by the hooks, he endeavours to liberate himself, by striking the board with the other; but, instead of succeeding in his attempt, this paw likewise soon becomes entangled by the hooks, and increases his difficulties. In this state of embarrassment, he raises himself up on his hind legs, which causes the board to rise before his eyes, and perplexes him in such a manner, that he presently becomes furious, and beats himself to death. The people, who live about the rivers Lena and Hinu, make use of a very singular method to catch Bears. A noose is fastened to the end of a large log of wood, which they place in the Bear's track, or at the entrance into his den; when the Bear finds himself entangled in the noose, and that the log of wood, which is fastened to it, interrupts his walking, he takes it up, and

THE BROWN BEAR.

carries it to some precipice, from whence he throws it down with great violence, and, of course, falling with it, is terribly bruised. This, however, does not prevent him from repeating the practice, till it ends in his own destruction.

Baiting the Bear was formerly a favourite diversion in England, and was thought not unworthy the attention of people of the first fashion, and even the sovereign was sometimes seen at the Bear Garden. But such cruel sports have now given way to entertainments of a milder nature. The Bear, however, still affords a favourite amusement to children, for which purpose he is led about by the Savoyards, secured by a chain fastened to his nose, and taught to dance in his awkward manner, and perform other diverting actions, at his keeper's command.



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POLAR BEAR.

THE POLAR BEAR.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot.

In walking, rests on the hind feet, as far as the heel.

SYNONIMS.

WHITE BEAR, *Martin's Spitz.* 100. *Ellis's Voy.* 41.

URSUS ALBUS, *Klein Quad.* 82.

L'OURS BLANC, *de Buffon*, xv. 128. *Briffon Quad.* 188.

THE Polar Bear, in size and strength, surpasses most other beasts of prey ; it is sometimes found from twelve to thirteen feet in length, from the extremity of the nose to the insertion of the tail ; its head and neck are long ; its ears round and short ; the termination of its nose is black ; its jaws are furnished with very sharp and strong teeth, of an extraordinary size ; its hair, which is of a yellowish white, is long and soft ; and its limbs are remarkably large and strong.

When the sailors land on the unfrequented shores, bordering on the icy mountains of Spitzbergen and Greenland, the White Bears come down, look at them with an awkward kind of curiosity, and seem in doubt how to act ; their hunger, however, soon determines them to make an attack, in which, if they meet with any resistance, or happen to be shot at or wounded, their courage instantly forsakes them, and they endeavour to make their escape ; but, finding that impracticable, they become desperate by necessity, and make a fierce defence, till they are overpowered.

THE POLAR BEAR.

These animals feed on seals, fish, and the carcases of whales, which naturally give their flesh a strong, fishy flavour; notwithstanding which, Captain Cook says, it is infinitely superior to that of the Sea-Horse, which is often eaten by our sailors, in preference to their salted provisions. The fat is melted for train oil: the liver is very unwholesome: three of Barentz's sailors became dangerously ill, after eating some of it boiled(A). They are very fond of dead human bodies, which they will scratch out of the ground, after they have been buried, and devour them greedily; they delight in human blood, and will attack companies of armed men, and even swim towards small vessels at sea, and attempt to board them; they likewise eat birds and their eggs. Their most formidable enemy is the Morse, with which they have terrible engagements, and are generally overpowered by the vast teeth of their adversary.

In the inhospitable regions about the north pole, where there is such a scarcity of every other terrestrial animal, the White Bears are found in great abundance; as their principal food is fish, they seldom remove very far from the shore; when provisions run short, they will sometimes venture into the deep, in search of seals, which they devour, if they can catch them.

The White Bear is often seen on ice-floats, several leagues from the land; in this manner, they are transported to the shores of Iceland, where they meet with a rough reception from the natives, who generally quickly destroy them. For this purpose, they make use of spears; and although a Bear will turn upon his pursuer, yet they have plenty of time to dispatch him, by throwing a glove in his way, which never fails to excite his attention so much, that he will not stir, till he has turned every finger of it inside out; which takes him some time to execute, as he is not very dexterous with his paws, and gives his pursuer an opportunity of killing him, or making his escape. The Bear, however, is seldom suffered to get away, as government gives a reward, of ten dollars, for every Bear that is killed, and purchases the hide of the person who kills him(B). In these excursions, it sometimes happens, that they meet with a

(A) Pennant.

(B) Horrebow's Iceland.

THE POLAR BEAR.

Greenlander and his wife paddling out at sea in their canoe, who coming too near an ice-float, are surpris'd by an unexpected visit from a White Bear, which jumps into their boat, and if he does not overset it, sets himself down very quietly as a passenger, till the Greenlander, not very fond of his new guest, rows him on shore; and what is very remarkable, the Bear, as if in return for the good office, seldom offers any violence to either of them. They prowls about upon the flakes of ice, in search of seals and dead whales, and when urged by hunger, they will even attack the Sea-Lion; though they often fall a sacrifice to their temerity, and are obliged to submit to the superior strength of their antagonist. They swim from one piece of ice to another, and, if attacked, will defend themselves against a boat full of men^(A).

The affection subsisting between the White Bear and its young is so very remarkable, that they will rather die than forsake each other. History furnishes us with several extraordinary instances, where the maternal love, displayed by this animal, has been equally striking and affecting. They generally produce two young ones at a time.

An animal of this species was publicly exhibited in England a few years since. It appeared to be very furious, roared tremendously, and seemed always agitated and uneasy, except when it was kept cool, by having large quantities of water thrown over it.

There is now one of them alive in the exhibition of wild animals at Exeter 'Change, of which the annexed plate is a faithful portrait. The conduct of this individual agrees perfectly with what has been related.

The Polar Bear inhabits the shores of Hudson's Bay, Greenland, Spitzbergen, and Nova Zembla, and is found no where else, unless when it is transported involuntarily on floating islands of ice.

During the depth of winter, these animals retreat under the snow, in which they form deep dens, supported by pillars of the same^(B).

(A) Crantz's Greenland.

(B) Egede 60, quoted by Pennant.



Ibbetson del.

Tookay Sc.

Published by W.Darton, J.Harvey, & W.Belch, Oct. 18th 1797.

WOLVERINE.

THE WOLVERENE.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot.

In walking, rests on the hind feet, as far as the heel.

SYNONIMS.

URSUS LUSCUS, *Linn. Syst.* 71.

URSUS, *Freti Hudsonis*, *Briffon Quad.* 188.

QUICKHATCH, *Catesby's Carol. App.* xxx.

QUICKHATCH, OF WOLVERENE, *Ellis's Hudson's Bay*, 42.
Edwards, 103.

CARCAJOU, OF QUICKHATCH, *Dobb's Hudson's Bay*, 40.

GLUTTON, *Grieve's Kamtschatka*, 99.

GULO, *Olaii Mag. gen. Sep.* 138.

GULO, VIELFRASS, *Gefner Quad.* 554. *Klein Quad.* 83.

ROFOMAK, *Rzaczinsky Polon.* 218.

JERF, FIELDFROSS, *Strom. Sondmor.* 152. *Pontop. Norw.* 11. 22.

MUSTELA GULA, *Linn. Syst.* 67.

JARF, FILFROSS, *Faun. Suec.* No. 14.

JØERVEN, *Gunner's Act. Nedros.* 111. 143. *tab.* iii.

LE GLUTTON, *Buffon*, xiii. 278.

THE Wolverine is the most beautiful animal of the Bear kind. The extraordinary lustre of its hair, which reflects the light like the richest silk damask, added to the pleasing variety of its colours, renders its fur very valuable.

THE WOLVERENE.

This animal is about twenty-eight inches, from the nose to the tail, which is seven inches long. The visage is sharp-pointed, and black, as far as the eyebrows; the eyes are small and black; the ears short, round, and almost hid in the fur: the hairs of the head, back, and belly, are reddish, tipped with black, which causes those parts at first sight to appear quite black: the sides are adorned with a yellowish-brown band, which is continued quite over the hind part of the back, above the tail; there is a white mark on the throat, and a crescent of the same colour on the breast. The legs are very strong, thick, and short; the toes are not very deeply divided; they are armed with strong and sharp claws, which are white at the ends; the general colour of the legs and feet is a deep black; but the paws of some individuals, particularly those found in Kamtschatka and the neighbouring islands, are white. The bottoms of the feet are covered very thickly with hair. In walking, it rests on the foot, as far as the first joint of the leg, like the Bear: the hair on the tail is of the same colour as the back; but is so coarse and long, as to make that part appear twice its real length.

The voracious appetite of the Wolverine, causes it to live in a state of continual rapine and depredation: the Horse, the Elk, the Stag, and the Rein-Deer are frequently the victims of its ferocity, particularly the latter: it is, notwithstanding, so slow in its motions, that almost every quadruped would escape from it, did it not possess a degree of cunning and sagacity which amply compensates for this defect. Having found a place usually frequented by the Rein-Deer, they climb up into a tree, carrying with them some of the moss, which is the favourite food of that animal. This they let fall on the ground, exactly under the branch on which they have fixed themselves, and then patiently wait till the unsuspecting Deer comes to eat his beloved moss; when they instantly dart down on his back with unerring aim; and fixing themselves between the horns of the Deer, they tear out his eyes, and torture the poor animal to such a degree, that, to put an end to his torment, or, if possible, to free himself from the cause of it, by destroying his enemy, he strikes his head with great violence against the trees, which generally kills him. Having thus brought his prey to the ground, the

THE WOLVERENE.

Wolverene divides its flesh carefully, and hides it in the earth, to preserve it from being eaten by any other creature; and never eats a bellyful before he has done this (A).

Though the Wolverine, in his native wilds, exhibits such a degree of fierceness and barbarity, as to become a terror to the Wolf and the Bear; in a state of confinement, he discovers a considerable share of gentleness and docility. M. Buffon had one in his possession, which, he says, was tolerably gentle in his nature; but in a great measure retained its voracity, and would eat above four pounds of raw flesh daily, devouring it so greedily, that it scarcely appeared to chew it.

There is an animal of this species, now in the possession of the Hudson's Bay Company, at their house in Fenchurch Street, London, from which, by permission, the annexed portrait was taken, which agrees with Buffon's experience with regard to gentleness of nature; but, respecting appetite, seems essentially different; his keeper asserting, that he is satisfied with less than will serve an ordinary Mastiff, though the animal is remarkably healthful and vigorous.

Without dissenting from the experience of so great a naturalist as Buffon, we cannot reconcile this seeming contradiction any other way than by analogy; for, as in the human kind, there are great diversities of constitution and appetite; the brute creation, agreeably to the conformation of their parts, must experience the same variety.

Dr. Grieve says, they are easily tamed, and capable of being taught several tricks; but perhaps they are not exactly alike in all countries.

The natives of Kamtschatka hold the fur of this animal in such high estimation, that when they wish to describe a man most richly attired, they say, he is clothed in the fur of the Glutton (B). The women adorn their hair with the white paws of this animal, which they consider as highly ornamental. It appears, however, that they kill but few of them, as they import some of them from Jakutski at a very high price. They set the highest value on the whitest and yellowest furs, although these are reckoned inferior

(A) Grieve's Kamtschatka.

(B) Grieve.

THE WOLVERENE.

every where else. They carry their ideas of the value of these furs even to a degree of enthusiasm, and say, that the garments worn by the heavenly beings are made of it; nor can they make their wives or mistresses a greater present than one of these skins, which was formerly sold for thirty, and even sixty rubles (A); and for the two paws, which the women wear in their hair, they frequently give one, and sometimes even two, Sea-Beavers.

Linnaeus, in his *Systema Naturæ*, p. 67, edit. 13, describes an animal, which he calls *Mustela Gula*, and says it possesses most of the properties of the Wolverine. As he candidly confesses that he has never had an opportunity of examining the living animal, and is, therefore, at a loss where to class it, it is probable that they are both the same.

The Wolverine often examines the snares and traps which are set by the hunters for other animals, and steals the Sables, &c. from them. It defends itself strongly, when attacked, and will tear the stock from a gun with its teeth, or break a trap in pieces (B). In America it watches and surprises the Beavers, as they are coming out of their houses; and sometimes even breaks into their habitations, and devours them; whence it is there called the Beaver-Eater.

This animal is found in Canada, Hudson's Bay, and in all the countries bordering on the Northern Ocean, where it is called by the different names of Wolverine, Quickhatch, Carcajou, and Glutton.

(A) The average value of the ruble is about four shillings sterling.

(B) Pennant.



Teskey Sc.

Robinson del.

Published by W. Darton, J. Harvey, & W. B. Alden, London. 5, p. 177.

RACCOON.

THE RACCOON.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot.

In walking, rests on the hind feet, as far as the heel.

SYNONIMS.

URSUS LOTOR, *Linn. Syst.* 70.

COATI, *Worm. Mus.* 319. *Briffon Quad.* 189.

RACCOON, *Catesby's Carol.* App. xxix.

MAPACH, *Fernandez Nov. Hisp.* 1.

VULPI AFFINIS AMERICANA, *Raii Syn. Quad.* 179.

LE RATON, *de Buffon*, vii. 337. *tab.* xliii.

THE Raccoon, in size, nearly approaches the Badger; its head resembles that of a Fox, excepting the nose, which is sharper, and not quite so long; the eyes, which are encircled with a broad patch of black, are large and yellow; the teeth similar to those of a Dog; the tail, which equals the length of the body, is thick, tapers towards the point, and is beautifully and regularly marked with alternate rings of black and white; its feet and toes are black; the fore feet are much shorter than the hinder, and each is armed with five sharp claws, which, in conjunction with the teeth, enable the animal to make a vigorous resistance if attacked. Its general colour is a greyish black. Like the Squirrel, it sits on end while eating, and holds its food in its fore paws. Though this quadruped will eat its provisions dry, it prefers dipping them in water, as if with a design to wash them; and has one peculiarity, which few other animals possess: that is, in drinking both by

THE RACCOON.

lapping and suction. Whatever is presented, it eats; and if left at large, carefully examines every corner, and seems to feast indiscriminately on whatever it finds; whether flesh, raw or boiled, eggs, fruit, corn, insects, snails, or worms, all seem equally acceptable to its general appetite. When inhabiting places near the sea, it shews a great predilection for oysters, which it opens with much address, by placing them under its hinder paws, and searching with the fore feet for the weakest part, where it fixes its claws, forces the shells asunder, and devours every morsel of the fish. The whole of this operation is performed without once looking at the oyster. Among other partialities, it is passionately fond of things that are sweet, and strong liquors, of which it will drink till completely intoxicated. Possessed of the subtilty of the Fox, it spreads, like him, destruction among the poultry; nevertheless, it is good-natured and sportive, always in motion, very inquisitive, and examines every thing with its paws. In short, the Raccoon is an active and nimble animal, and, although it bounds in an oblique direction, yet it runs with great swiftness; climbs trees with much activity; runs on their trunks as rapidly as on plain ground; and plays at the extremity of the branches with the greatest security and ease.

These animals inhabit the southern parts of America, and are very numerous on the Island of Jamaica, where they are very destructive to the sugar canes; and, though various means are used to extirpate them, they breed so fast, that they have hitherto been found ineffectual.

The fur of the Raccoon is held in estimation next to that of the Beaver, for the fabrication of hats.



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RATTL

&

BADGER

THE RATEL.

GENERIC CHARACTERS.

Six cutting and two obtuse teeth in each jaw.

Nose sharp; body slender.

Five toes before, five behind.

SYNONIMS.

FIZZLER, *Pennant Syn. Quad.* 234.

STINK-BINGSEM, *Kolben Capé*, ii. 133.

STINKBINKS, *Schreber Mammäl.* p. 450. *tab.* 125.

BLEREAU-PUANT, *Voy. de la Caille*, 182.

THE Ratel, according to Dr. Sparrman, is about forty inches in length, from the extremity of the nose to the insertion of the tail, which is about twelve inches long. The nose is short and pointed: it has no external ears, but only a trifling border, which furrounds a large aperture, in which the organs of hearing are placed. The top of the head is of a whitish grey, which colour extends the whole length of the back, and half way down each side: it is laterally bounded by a narrow, whitish stripe, which extends from behind the ear to the end of the tail; the extremity of the tail is of a brownish black, the rest of that part is of the same colour as the back; the lower parts of the sides, the belly, legs, and feet, are nearly black: the toes on the fore feet are furnished with claws, an inch and a half long; those on the hinder feet are more than three quarters of an inch: these claws have a sharp edge, which is double half way on the fore part of it, or rather hollowed with a deep furrow. This conformation, added to the extraordinary length of the claws on the fore feet, is well adapted to the manner in

THE RATEL.

which it obtains its food, which is honey. The Ratel is endowed with a surprising faculty of discovering the secret retreats where the Bees hide this delicious viand. This investigation the Ratel usually undertakes about sunset, at which time it watches the motions of these industrious insects with great attention, holding one of its paws before its eyes, in order to modify the rays of the sun, so as to render them inoffensive to the organs of sight, and that it may at the same time have a distinct view of the object of its pursuit. Having thus well remarked their route, it carefully follows the same course. In these researches, it is often assisted by a bird, which the natives call the Honey-guide, (*Cuculus Indicator*), which is equally fond both of honey and of the larvæ of Bees. This bird, when in quest of its favourite food, frequently sends forth a grating cry, resembling the sound of the monosyllables *cherr, cherr, cherr*, at the same time gradually approaching the place where the Bees have deposited their treasure. The Ratel carefully and instinctively attends to this call, which it follows till it arrives at the object of its pursuit, when it plunders the nest, always leaving a sufficient quantity, as a reward to its faithful conductor. Thus these two animals hunt, by a sort of instinctive consent, till they have obtained the common object of their desires, which the Cuckoo could not easily procure without the assistance of the Ratel, to dig it out of the recesses in which it is concealed; nor could the Ratel, on the other hand, so readily discover these recesses without the assistance of the Cuckoo, to point out their situation.

The conformation of the Ratel is particularly well adapted to its manner of living: the long claws, with which the toes of the fore feet are furnished, are of singular service to the animal, in digging into the hollows of the earth; and the toughness, thickness, and looseness of its skin effectually defend it from the vindictive stings of the vineyard Bees. This structure of the skin is likewise a great source of defence, to the animal, against all other attacks; for, like the Badger's, it is so loosely attached to the body, that, when it is seized by a Dog, or any other creature, it gives way, and enables the Ratel to turn round and bite its enemy; which it often does with so much effect, as to oblige it to desist from the attack. Dr. Sparrman

THE RATEL.

observes, that "it is a remarkable circumstance, that such a number of Hounds as, collectively, are able to tear a Lion, of a moderate size, in pieces, are frequently forced to leave the Ratel, only dead to appearance; and that on the fur of one, which had been worried by a number of Hounds, there was scarcely the mark of a bite to be seen."

The same gentleman likewise remarks, that the wild Bees of Africa usually build their nests in the holes which have been made in the ground by the *Hystrix Jerbua Capensis*, *Sus Æthiopicus*, and other animals, as trees are seldom to be met with sufficiently excavated for their purpose; and that those Bees, which build their nests in trees, are perfectly secure from the attacks of the Ratel.

This animal inhabits the interior parts of the country, behind the Cape of Good Hope, where it is pretty common.

THE BADGER.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot; the claws on the fore-feet very straight and long.

A transverse orifice between the tail and the anus.

SYNONIMS.

MELES, *Plin. Hist. Nat.* lib. viii. c. 38. *Gefner Quad.* 327.

Briffon Quad. 183.

MELES, SIVE TAXUS *Raii Syn. Quad.* 185.

TAXUS, *Aldrovand. digit.* 264. *Fonst. Quad.* t. 64.

URSUS MELES, *Linn. Syst. Nat.* 70.

GRAF-SUIN, *Lin. Faun. Suec.* No. 20.

MELES, TAXUS, TASSUS, BLERELLUS, JAZWIEC, BORSUK,

Rzacziński Polon. 233.

DACHS, *Kramer Austr.* 313.

COATI CAUDA BREVI, COATI GRISEUS, TAXUS, MELES, TAX,

Klein Quad. 73.

COMMON BADGER, *Pennant Syn. Quad.* 142.

LE BLAIREAU, OU TAISON, *de Buffon*, viii. 104. *tab.* vii.

PERHAPS no animal has been more defamed, by vulgar prejudices, than the Badger. Harmless and inoffensive in its nature, it is accused of ferocity, merely because it is furnished with formidable weapons of offence, and has sufficient strength to use them; of which, however, it avails itself only for its

THE BADGER.

convenience and support, unless when attacked by its enemies, at which time it defends itself with great fierceness and effect. It is as wrongfully charged with killing Rabbits, and even Lambs; for which scandalous aspersions there seems to be no other foundation, than the similitude between the formation of its teeth and those of carnivorous animals. A useful lesson may be learned from hence, by those who are but too prone to asperse the characters of their neighbours: they should be well assured of the authenticity of slanderous reports, before they venture to spread them abroad; and, even then, it is generally much better to conceal them, or at least only to admonish their neighbours privately.

The Badger is in general rather more than two feet in length, from the extremity of the nose to the insertion of the tail, which is six inches long.

The hair on the body is long, coarse, and bristly: each hair is of three colours; the bottom, next the root, is of a dirty yellowish white, the middle is black, and the extremity grey: hence arose the old proverb, "as grey as a badger." The general colour of the head is white, except a black pyramidal line, which begins between the nose and eyes, and extends beyond the ears; the throat, breast, belly, and legs are black; the eyes are small, the ears round, and the neck short and thick. Under the tail is a gland, from which exudes a white substance, of a fœtid smell. The toes on the fore-feet are furnished with claws, which are remarkably long and strong, and well adapted to the purpose of digging in the ground. This animal, in walking, treads on its whole heel, like the Bear, which, added to the extraordinary length of the hair on the body, gives its legs the appearance of being so short, that the body seems almost to touch the ground.

The Badger is a stupid, solitary animal; it carefully shuns the vicinity of man, and lives retired in a deep subterraneous hole, which it digs with great assiduity and address, throwing out the loose earth behind as it advances. It is an idle, indolent animal, and sleeps much, confining itself to its hole during the whole day, and feeding only in the night, when it sallies forth in search of roots, fruits, grubs, insects, and frogs. During these nocturnal excursions, the Fox, which is not so expert at digging in the earth, cunningly

THE BADGER.

takes possession of the Badger's empty den, and, some say, forces the true owner from its habitation, by leaving offensive discharges at the mouth of it.

Nature, having denied the Badger that speed which is necessary to secure its escape from its enemies, has kindly compensated for that defect, by furnishing it with such weapons of offence, that very few creatures will hazard the attacking it. When closely pursued, it soon comes to bay, and, taking the advantage of some corner, rises up on its hinder legs and combats with desperate resolution. On this account it is often baited with Dogs properly trained for this purpose; but this inhuman diversion is usually confined to the indolent and vicious, who take delight in the savage pleasure of seeing a poor innocent animal surrounded by its enemies, and, although overcharged by numbers, defending itself from their combined attacks with wonderful activity and effect. It is so rapid in its motions, that the dogs are often desperately wounded on the first assault, and compelled to give up the contest. The looseness of the Badger's skin enables it to turn itself easily round when seized, and gives it an opportunity of wounding its enemies in their most tender parts; and the thickness of it, added to the length and coarseness of the hair, defends it much from the bites of the Dogs. These animals are hunted with Dogs in the winter nights, and afford a species of diversion to those who are fond of the sport: when taken, their hind quarters are sometimes made into hams, which are well flavoured, but the fat is apt to become rusty by keeping. The skin, dressed with the hair on, is made use of as pistol furniture, and brushes are made of the hair, which painters call sweetening tools, and use them to harmonize and soften their shades.

The usual method of catching Badgers is with a steel trap, or springe; or else to dig a pitfall, across their accustomed path, which must be five feet deep, and four feet long, narrow at the top and bottom, and wide in the middle. This pit must be covered with small sticks which have their leaves on them, so as that the Badger may not suspect any design, and fall into it when he attempts to cross over. They are also, sometimes, hunted into their holes on a moon-shine night, and then dug out again^(A).

(A) Mortimer's Husbandry, Vol. I. p. 314.

THE BADGER.

The female brings forth but once a year, which is in summer time, and usually produces four or five at a litter.

The Badger is found in most parts of Europe, as far north as Norway and Russia, and the desert beyond Orenburgh, north of the Caspian Sea. It is also found in China, where it is much esteemed as food, and the flesh is frequently exposed for sale in the butchers shops in Pekin. The parts of England where they are most common, are Suffex, Effex, and some of the inland counties.



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THE FLYING & VIRGINIAN OPOSSUMS

THE FLYING OPOSSUM.

GENERIC CHARACTERS.

The number and disposition of the teeth uncertain.

Five toes on each foot ; the hind feet formed like a hand with a distinct thumb.

The body alated like the Flying Squirrel.

SYNONIMS.

POTAURUS, *Dr. Shaw's Naturalist Misc.*

HEPOONA ROO, *White's Botany Bay.*

THIS animal has not long been added to the catalogue of quadrupeds ; it is an inhabitant of New South Wales, and is hitherto not sufficiently known to ascertain either its generic characters or its habits with any degree of accuracy ; it is however probable, from analogy, that it somewhat resembles the Flying Squirrel in its manners. The ingenious Dr. Shaw, whose knowledge of natural history gives great weight to his opinion, seems inclined to make a new genus of this animal, under the generic name Potaurus, as, although it greatly resembles the Opossum genus in some particulars, it differs from it in others : the decision must, perhaps, be reserved for more accurate investigation than we are hitherto possessed of.

This animal is nearly as large as a Cat, and is very active and playful ; its colour is dark, very rich and glossy, and mixed with grey ; it is white under its belly, throat, and thighs ; each hip is adorned with a round spot of the colour of tanned leather ; the texture of its fur is beautifully soft and fine, and much more delicate than that of the Sea-Otter ; it is continued down to the claws : the nose is sharp and pointed ; the ears upright and

THE FLYING OPOSSUM.

large ; it has five toes on each foot ; but, on the hind feet, one of the toes resembles a thumb, by means of which the animal can use those feet as hands ; the three outside claws on the hind-feet are connected by a membrane ; like the Flying Squirrel, the skin of the sides and belly is loose, and capable of great extension ; it is connected to the feet, both before and behind ; so that, when the animal stretches out its legs, the skin on the sides becomes extended somewhat like the Bat. By this means, the surface of the animal's body is increased, and the little creature is enabled to keep itself buoyant in the air, till the projectile force of its leap is expired, when it naturally descends. By this means, it is enabled to jump from one tree to another, at the distance of above one hundred yards ; but it always mounts to the top of a tree before it takes its leap. As this membrane is broader in this animal than in the Flying Squirrel, it is probable, that it is capable of leaping further.

THE VIRGINIAN OPOSSUM.

GENERIC CHARACTERS.

The cutting teeth unequal in number in each jaw.

Two canine teeth in each jaw.

Five toes on each foot: the hind feet formed like a hand, with
a distinct thumb.

The tail very long, slender, and naked.

SYNONIMS.

DIDELPHIS MARSUPIALIS, *Linn. Syst.* 71.

LE SARIGUE OU L'OPOSSUM, *de Buffon*, x. 279. *tab.* xlv. xlv.

MUS MARSUPIALIS, *Klein Quad.* 71.

PHILANDER SATURATE SPADICEUS, &c. *Briffon Quad.* 207.

WOOD-RAT, *Du Pratz Louisiana*, ii. 65.

SEMI-VULPA, *Gefner Quad.* 870.

TLAQUATZIN, *Hernandez Mex.* 330.

TAI-IBI (maf.) CARAGUEYA (fem.) *Marcgrave Brasil*, 222.

Raii Syn. Quad. 182. 185.

THIS animal is about seventeen inches in length, without the tail, which is fourteen. Its head is sharp, resembling that of a Fox; the eyes are round, small, black, and lively, and placed upright; the ears are long, broad, and transparent, resembling those of the Rat. The face is covered with short, soft hairs, of a dusky-colour; besides which, it has some long stiff hairs on each side of the nose, and behind the eyes; and over each eye there is a large white spot. The cheeks incline to white: the sides of the neck are of a

THE VIRGINIAN OPOSSUM.

whitish yellow; the hair on the hind part of the neck and the back is soft to the touch, but appears uneven to the eye; it is above two inches long, each hair is of a yellowish white at the root, black in the middle, and whitish at the end; the sides are covered with dusky hairs; those on the belly are of a dirty white; they are soft and have a woolly appearance; the legs and thighs are short and black; the feet dusky; the toes armed with whitish claws; that part of the tail which is next to the body is covered with long black hairs for the space of three inches; the rest, to the extremity, is all over small scales of a whitish colour, which gives it an uncouth appearance, somewhat resembling the body of a Snake; it has a prehensile quality, and the animal frequently hangs by it, suspended from the branch of a tree, and, by swinging its body, easily transports itself from branch to branch; the body is round and thick; the belly of the female is furnished with a large pouch or bag, in which the teats are situated, and which serves as a shelter for the young, as soon as they are produced; which period happens long before they have attained to that degree of perfection observable in other quadrupeds, when newly born; and, indeed, before they have arrived at one fourth part of the proportionable size of animals at their birth; in this state they are blind, naked, and totally helpless; they are, however, directed by the unerring guide of instinct, to seek for this safe asylum, into which they all creep, and fasten so closely to the teats, as not to be separated but with great difficulty (A): here they not only find shelter, warmth, and safety from external accidents, but are amply provided with nourishment, till they have attained their perfect shape and sight, and are covered with hair, and possessed of sufficient strength to quit their retreat, and undergo what may be called a second birth: after this time they only use the pouch as a safe retreat from danger, and the parent carries them about with her. The attachment of the female to her young is at this period excessive, and she will endure any tortures, rather than suffer this

(A) Ulloa asserts, that he has found five of these little creatures hid in the pouch of the mother, three days after she was dead, and that they were still alive, and clinging strongly to the teat.

THE VIRGINIAN OPOSSUM.

receptacle to be opened, if she can prevent it, being furnished with the power of opening or closing it by the assistance of some very strong muscles.

The Opossum, when on the ground, appears to be a very helpless animal, the formation of its hands preventing it from walking fast, or running with any tolerable degree of swiftness; but its alertness in climbing trees makes ample amends for this defect; it ascends them with the greatest facility and expedition, and, by the additional help of its prehensile tail, is more active in this situation than most quadrupeds, Monkeys excepted; it hunts eagerly after birds and their nests, is very destructive to poultry, of which it sucks the blood without eating the flesh; it will also eat roots, and wild fruits; when it is pursued and overtaken, it will feign itself dead, till the danger is over: it is as tenacious of life as a Cat, and cannot be killed without great difficulty. The female brings forth four, five, or six young ones at a time.

The flesh of the old animals is wholesome good food, and resembles that of a sucking pig; the skin has a very foetid smell: the Indian women dye the hair, and weave it into their garters and girdles.

The Opossum is found in Virginia, Louisiana, Mexico, Brazil, and Peru. Mr. de Buffon supposes this genus is confined to America, and warmly combats the opinion of other naturalists on this subject. But Mr. Pennant seems satisfied from the authority of Piso, Valentyn, and Le Brun^(A); who have seen it both in Java and the Molucca Islands, and from that of many collectors in Holland, who have received it frequently from those places, that a species of the genus, perhaps only a variety of that just described, inhabits the Indian islands, as well as the continent of America. But this matter is now put out of doubt by some animals of this genus, which have been sent from our settlement lately established in New South Wales.

(A) En Indiis orientalibus, idque solum, quantum haec genus constat, in Amboina, similis Bestia (Carigueya) frequens ad felis magnitudinem accidens, maculata ab incolis comeditur, si rite preparetur, nam alias foetet, nomen illi Cous Cous inditum.—*Piso Brasil*, 323. Le Brun, in his voyage to the East Indies, describes this animal under the name of Filander, i. 347. tab. 213.



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KANGURU

THE KANGURU.

GENERIC CHARACTERS.

No canine teeth; four broad cutting teeth in the upper jaw; two long lanceolated teeth in the lower, pointing forward; four (A) grinding teeth in each jaw, remote from the others. This animal has the very singular power of separating the lower incisores, and bringing them again close to each other. *Pennant's Hist. of Quad.* 3d. edit. vol. ii. p. 29.

SYNONIMS.

JERBOA GIGANTEA, *Zimmerm. Zool. Geogr.* 526.

KANGUROO, *Cook's Voy.* iii. p. 577. pl. 20.

KANGURU, *Pennant's Hist. Quad.* p. 336. pl. 35.

IT is to the indefatigable ardour and enterprising spirit of Sir Joseph Banks, that we are indebted for our first acquaintance with this most singular quadruped. Separated, by its native abode, from the enquiring eye of the naturalist, it remained wholly unknown till the country, of which it is a native, was first explored by that great circumnavigator, Captain Cook, who, fortunately for the lovers of that branch of science, was accompanied by that eminent enquirer into the productions of nature.

The uncommon general appearance of this animal, added to the disposition of its teeth, would almost warrant its being made a new genus of; although it must be confessed, on the other hand, that some properties it possesses, in common with the Opossum, seem to declare it of that genus;

(A) Mr. White, in his Account of the Productions of South Wales, says this animal has five grinders on each side, in each jaw; and that the most forward of them is very small.—P. 274.

THE KANGURU.

to which Mr. Pennant has accordingly referred it, in his excellent History of Quadrupeds, and we are unwilling to differ in opinion from so good a judge.

The individuals, which have hitherto come within our observation, vary considerably in size; the largest specimen measured eight feet five inches from the tip of the nose to the end of the tail, and weighed one hundred and fifty pounds; and it is generally believed they attain to a much larger size.

The Kanguru resembles the Jerboa in its mode of standing and running, or rather jumping, but in no other particular. Its general colour is a greyish brown, much like the Wild Rabbit of Great Britain.

Its shape appears to be greatly disproportioned, being very small about the head and shoulders, and gradually increasing in bulk to the bottom of the belly and hips, where it is largest. Its legs likewise differ much in their proportionate length, the hinder ones being three feet seven inches long, whereas the fore legs measure but nineteen inches. This extraordinary disproportion in the length of the legs obliges the animal to walk erect on its hind legs, and it performs its progressive motions by springs or leaps, like some small birds, but with such surprising strength and activity, that it will traverse twenty feet of ground at one bound, and jump over obstacles nine feet high, with the greatest facility; and these bounds are repeated so rapidly, that the swiftest Greyhound finds it a difficult task to overtake it; and if by chance caught by the Dog, it struggles with so much strength, that it soon escapes from its adversary, and acts the same part over again. In these struggles, it uses the tail as a weapon of defence, and strikes so hard with it, as to make the Dog shy of a second engagement. The usual method, therefore, of obtaining this animal, is to lie in wait with a gun, and shoot it. The hinder legs are very strong, and, when sitting, the Kanguru rests on the whole of their length, and uses the tail as an additional leg, to balance and support the body, the rump being elevated several inches from the ground; the under part of these legs is callous, and wholly divested of hair: the toes on these feet appear to be only three in number, although there are really four; the inner one is of a peculiar structure, appearing at first sight to be single, though, on more accurate inspection, it is found to be actually

THE KANGURU.

divided down the middle, which division extends through the ball of the toe belonging to it, the whole appearing as if the separation was made by a very sharp instrument. The middle toe greatly exceeds the others in length, is by much the strongest, and bears a great resemblance to that of an Ostrich. The fore legs are furnished with five toes and as many claws, but their shortness prevents their being applied to the purpose of walking, and the animal only uses them, as hands, to convey its food to the mouth, and to scratch and dig holes in the earth. The tail is near three feet in length, it is very thick at the rump, and tapers gradually towards the end. When the animal is at rest, the tail appears to lie at ease behind it; but, when in motion, it is usually carried quite erect. The countenance of this animal is mild and pleasing; the shape of the head bears some resemblance to that of a Fawn; the ears are large, and generally stand erect.

The ingenious Mr. Home, who has obliged the world with some very curious and interesting anatomical observations on the mode of generation of the Kanguru, observes^(A), "that it differs in the economy of its young from all other quadrupeds, except those of the genus Opossum, to which, in this particular, it seems to be related; the fœtus of this tribe neither deriving its support from a connection with the uterus of the mother, like other quadrupeds, nor receiving it in the manner in which it is conveyed to the young of such animals as are hatched from the egg, but having a mode of support peculiar to itself and its congeners. It therefore appears to form a link in the chain of gradation from the one to the other."

The female Kanguru has two mammæ, and each is furnished with two nipples: they are not placed upon the abdominal muscles, as in most quadrupeds, but are situated between two moveable bones connected with the os pubis, peculiar to this tribe of animals. The mammæ are covered by the lining of the pouch, or false belly, and the nipples project into that cavity. The skin of this covering is thinly scattered over its surface with short hair, except at the root of the nipples, where there are tufts of some length, one at the basis of each. It is from these nipples that the young

(A) Philosophical Transactions for the Year 1795. Part i. p. 221.

THE KANGURU.

fœtus receives its nourishment, from the time of its exclusion from the uterus, which happens at so early a period, that, at that time, the little animal does not exceed an inch in length, and weighs but twenty-one grains. At this early period of the growth of the fœtus, its mouth is merely a round hole, just large enough to receive the point of the nipple; this hole gradually enlarges as the animal advances in size, till it is capable of receiving the whole of the nipple into its mouth, where it lies in a groove, formed in the middle of the tongue, well adapted for that purpose. Mr. Home thinks it probable, that the mouth of the fœtus, in this very early state, is attached to the nipple by means of the viscid gelatinous substance, which is always found in the uterus. It is observable that, in this young state, the fore paws, when compared with the rest of the body, are large and strong, and the little claws extremely distinct, to facilitate the motion of the little animal during its residence in the large pouch, while the hind legs, which are afterwards to become very large, were both shorter and smaller than the others. The young ones continue to reside in this bag, or pouch, till they have attained their full maturity, only quitting it occasionally for exercise or amusement; and, even after they have quitted it, they have been observed to run into the pouch, for shelter, on the least appearance of danger; on which occasion, the tender mother contracts the part with so much strength, that it cannot be forced open without the greatest difficulty.

The Kanguru is an inhabitant of New Holland, and has not hitherto been found in any other place. Its flesh is eaten by the natives and colonists, and accounted excellent food.

The animals, from which the annexed plate was drawn, are now living in the Royal Garden at Kew, where they breed, and appear quite naturalised. They produce one young at a birth, and feed chiefly on grass.

Lieutenant Shortland describes them as feeding in herds, consisting of thirty or forty; and says, that one is always on the watch, at a distance from the rest.



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MARTIN

and

WEASEL.

THE MARTIN.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Nose sharp; body slender.

Five toes on each foot.

SYNONIMS.

MARTES GUTTURE ALBO, *Gefner Quad.* 764.

MARTES, alias FOYNA, MARTIN, or MARTLET, *Raii*
Syn. Quad. 200.

MUSTELA MARTES, *Linn. Syst.* 67.

MARD, *Faun. Suec.* No. 15.

KUNA, *Rzaczynski Polon.* 222.

STEIN-MARTER, *Klein Quad.* 64.

LA FOINE, *de Buffon*, vii. 186. *tab.* xviii.

MARTIN, *Brit. Zool.* I. 79.

THE Martin is the most beautiful of the British beasts of prey. The elegance of its form, the brilliancy of its colours, and the graceful agility of all its motions, render it at once a most pleasing and entertaining little creature. Its odour is likewise an additional recommendation to it; for, instead of being offensive, like most of its tribe, it has the agreeable flavour of musk, without being so predominant.

The length of the Martin is generally eighteen inches from the end of the nose to the insertion of the tail, which is ten inches long, well clothed with long hair, and bushy at the end. Its head is small, and the form of it elegant; its eyes are lively and full of expression; its ears broad, rounded,

THE MARTIN.

and open. The body, sides, and tail, are entirely covered with a fine, thick, downy fur, intermixed with long hair, the roots of which are ash-coloured, the middle of a bright chestnut, and the points black, giving a darkish brown appearance to the whole; the belly is rather paler, and the breast and throat are white; the legs and upper parts of the feet of a deep chocolate colour; the under sides of the feet covered with a thick down, like that on the body; the feet broad, the claws white, large, and sharp, and well adapted to the purpose of climbing trees, but, like all others of the same tribe, incapable of being sheathed or unsheathed at pleasure. The cry of the Martin is sharp and piercing, but it never utters it, except when in pain or distress.

The Martin is a great destroyer of Rats, Mice, and other small quadrupeds; poultry, game, and small birds are its constant prey; and it is remarkably fond of honey. Its retreat is generally in the hollow of some tree, towards the top, and so situated as to place the animal in perfect security. It generally prefers the nest of a Squirrel, which, after that little creature has taken great pains to complete, the Martin, by the usual claim of superior strength, dispossesses the ingenious architect, by killing it; after which it enlarges its dimensions, lines it with softer materials, and in that secure and convenient retreat, brings forth its young. Its little family does not consist of more than three or four, which, like the rest of this tribe, are brought forth with their eyes unopened, but quickly arrive at a state of perfection. The female has but a small quantity of milk, in proportion to her size, but she amply compensates for this natural defect, by bringing home eggs and live birds to her offspring, and thus early accustoming them to a life of carnage and plunder. As soon as the young are able to leave the nest, they are led by their dam into the woods, where the birds at once recognise their enemies, and fail not to attend them, as they do the Fox, with every mark of animosity and terror.

The Martin is valiant and courageous, and will attack animals much larger and stronger than itself; as the Sheep, the Hare, and even the Wild Cat, which, though much stronger, is always worsted, and often killed, in the combat. Indeed, these animals seldom meet without a mutual attack.

THE MARTIN.

Notwithstanding this ferocity of disposition, the Martin seems capable of being tamed. Gefner says, "he kept one, which was very tame, and extremely playful and entertaining: it used to go to the houses of the neighbours, and always came home when it wanted food; it was particularly fond of a Dog, with which it had been bred up, and would play with it, as Cats do, lying on its back, and pretending to bite without anger or injury." The Count de Buffon says, he kept one tame, which, though it had lost its ferocity, did not discover any marks of attachment, and still continued so wild as to require being chained. On the appearance of a Cat, it instantly prepared for war, and, if any of the poultry came within its reach, flew upon them with great eagerness. It made frequent escapes from its confinement; at first it returned after some hours absence, but without appearing pleased; the time of absence of each subsequent elopement gradually increased, and at last it took its final departure. He remarks, that this individual drank frequently, that it would continue sleeping for two days without intermission, and would then remain awake for as long a period of time. When preparing for sleep, it formed its body into a circle, hid its head, and covered it with its tail.

The Martin is an inhabitant of Europe and North America, but is most plentiful in the latter. It is likewise found in all the northern parts of the world, from Siberia to China and Canada. They are every where hunted for their furs, which are held in great estimation, and are most valuable when the animal is taken in the beginning of winter. In England they are used to line the robes of magistrates. The most valuable part of the skin is that which is brownest, extending along the back bone. They form a considerable article of commerce; above twelve thousand of these skins being annually imported into England from Hudson's Bay, and above thirty thousand from Canada,

THE COMMON WEASEL.

GENERIC CHARACTERS.

Six cutting and two obtuse teeth in each jaw.

Nose sharp; body slender.

Five toes on each foot.

SYNONIMS.

MUSTELA, *Gesner Quad.* 752.

WEASEL, FITCHET, or FOU MART, *Raii Syn. Quad.* 195.

WHITRED, *Sib. Scot.* III. ii.

WIESEL, *Klein Quad.* 62.

WEESEL, *Brit. Zool.* I. 82.

LA BELETTE, *de Buffon*, vii. tab. 225. xxix.

THE singular disproportion between the length and height of the little animals, which compose this family, is completely characteristic of them, and is alone sufficient to distinguish them from all other carnivorous quadrupeds. The length of the Wolf, in proportion to its height, is as one and a half to one; whereas the length of the Weasel, compared with its height, is as five to one. But, besides this striking character, they have another equally pointed; namely, the extraordinary smell of their bodies, which, in some, as the Weasel, Ferret, Polecat, and a few others, is highly foetid and offensive, and in the Skunk, insupportably so; whereas in others, as the Civet-Cat and Martins, it is equally pleasant, and is used, even as a perfume, by the ladies. This odour, whether agreeable or not, is furnished by two glands placed under the tail, from which an unctuous matter continually exudes. Though these animals are comparatively small, they

THE COMMON WEASEL.

become formidable, from their enterprising activity; and their eagerness after plunder is only equalled by the cruelty with which they commit their depredations. Unable, from their size, to make much resistance, they find their chief protection in their minuteness; and, conscious as it were, of their thieving disposition, they shun the sight of man, hiding themselves in holes in the day time; from whence, at the approach of evening, they fall forth to commit their devastations. They are all cruel, voracious, and cowardly; and, being slow in pursuit, from the shortness of their legs, depend on their affiduity, patience, and cunning for their support. The slenderness of their body enables them to insinuate themselves into very small holes, in search of their prey; whence they have obtained the appellation of vermin, from their similitude to a worm in this particular.

The Weasel is the smallest of this numerous family; its length being only seven inches, from the end of the nose to the insertion of the tail, which is two inches and a half long, and adds considerably to the apparent length of the body: its colour is a reddish brown, resembling cinnamon. This colour extends all over the head, neck, back, sides, and legs; but it is white under the throat and belly. There is a brown spot on each jaw, beneath the corners of the mouth. It has whiskers, like a Cat, and its mouth is armed with thirty-two teeth, which are two more than to be found in any of the Cat kind, and well adapted for tearing and chewing. The eyes are black and small; the ears short, broad, and roundish; and have a fold at the lower part, which gives them the appearance of being double.

The Weasel, like all its congeners, does not walk or run, as other quadrupeds do; but advances, by bounding or jumping; and, when it ascends a tree, it gains a considerable height by a single spring. It seizes its prey, by jumping on it in the same manner, and, having great flexibility of body, easily evades much stronger animals, when they attempt to seize it. The Weasel always preys in silence; and never utters any cry, except it is struck, when it expresses resentment and pain by a rough kind of squeaking. Its appetite, for animal food, is insatiable, and never forsakes it; and it prefers eating it in a state of putrefaction; nay, it seems even to delight in

THE COMMON WEASEL.

the vicinity of putrid effluvia; for the Count de Buffon tells us of a Weasel, which was found, with three young ones, in the carcase of a Wolf that was become putrid, having been hung up by the hind legs, as a terror to others. This horrid retreat the Weasel had pitched upon, as a proper place to retire to, in order to bring forth her young; she had, accordingly, lined the cavity with hay, grafs, and leaves, for that purpose; and the young ones were just brought forth, when the nest was discovered by a peasant, passing that way.

Although the size of the Weasel is comparatively diminutive, it is, nevertheless, a very destructive and formidable enemy to animals a hundred times its own size. The Hare is terrified into a state of defenceless imbecility at the sight of this little creature, and resigns itself to its fate, without making the least attempt either to resist or escape, sending forth, at the same time, cries, which indicate the greatest distress: it is equally destructive to Rabbits, poultry, and young birds, and greedily devours eggs, wherever it can find them. Its bite is generally fatal; it makes its attack near the head, and artfully fixes its sharp teeth in a vital part, making a wound so small, as scarcely to be perceived. We are told, that an Eagle having seized a Weasel, mounted into the air with it; and was after observed to be in great distress. Its little enemy had extricated itself so far as to be able to bite the Eagle severely in the throat, which presently brought it to the ground, and afforded the Weasel an opportunity of making its escape.

This little animal is very common and well known in most parts of the country; but it is held in very different, and even opposite, degrees of estimation in different parts of it. In those places where Lambs are bred, the Weasel is a most formidable and noxious inmate, and its destruction is attempted by every possible contrivance; while, on the other hand, in those places where much grain is produced and preserved, its friendly offices, in lessening the number of those little animals which feed on corn, are universally acknowledged. It is, perhaps, one of the most untameable of quadrupeds. When kept in a cage, it constantly refuses to eat in the presence of any one. It is in perpetual agitation, and so much disturbed

THE COMMON WEASEL.

and molested by the sight of man, that it will even die if not permitted to hide itself.

In a state of nature, it sleeps during the day time in its hole, and, at the approach of evening, is observed peeping and stealing out of its retreat, and creeping about the farm yards, in search of its prey. When it enters a Hen-roost, it instantly attacks and kills the young ones, leaving the old Hens and Cocks unhurt. It does not devour its prey on the spot, but carries it off to its young, or its retreat, to be eaten at leisure. It is difficult to secure any place from its depredations, as it runs up the sides of walls with the greatest facility; and the smallness and flexibility of its body enable it to pass through almost every crack and crevice. During the winter season, the Weasel chiefly confines its nocturnal excursions to barns and farm yards, where it destroys more Rats and Mice than even the Cat; pursuing them into their holes, and always killing them after a short resistance. It is very destructive to young Pigeons, and, indeed, to all kinds of young birds; and hunts with increased boldness and avidity, when it has young ones to provide for. In summer, it ventures farther from home, and always follows its favourite prey, the Rat, to its summer recesses; accordingly, it is found with that animal in low grounds, by the sides of waters, and near mills.

When the female is about to bring forth her young, she takes uncommon pains for the accommodation and comfort of her little family, by lining the hole with grass, hay, leaves, and moss; and generally brings forth from three to five at a litter; which, like those of the Dog kind, are born with their eyelids unopened, but soon acquire their sight, and sufficient strength to accompany and assist their dam in her nocturnal depredations.

The Weasel has a strong, disagreeable scent, which is the most offensive in summer time, and particularly so, when the animal is irritated or pursued.

Notwithstanding what has been asserted, respecting the untameable nature of this little animal, the Count de Buffon relates, "that a lady so far familiarized a young Weasel, which was taken in her garden, that it soon learned to lick the hand which fed it, and became as frolicsome and caressing as a Squirrel." The same author makes mention also of "a gentleman who

THE COMMON WEASEL.

trained a young Weasel to follow him wherever he went. This he accomplished by stroking it gently over the back, and threatening and even beating it whenever it offered to bite." If these facts can be well authenticated and established by future experiments, the Weasel may prove to be a very advantageous substitute for the Cat, particularly on board of ships, where its size and shape render it very well adapted to the pursuit of Rats and Mice into their holes and lurking places.

This animal inhabits the temperate parts of Europe, but is scarce in the north. It is also found in Barbary (A,) and in Siberia there is a white variety, which is called *Lasmitka*: the skins of these are sold to the Chinese for three or four rubles the hundred (B.)

(A) Shaw's Travels, 249.

(B) Pennant's Syn. Quad. p. 212.



Blanc, del.

Engraved by W. Harrison Murray, & W. H. May del. 1841.

Don't.

FERRET

THE FERRET.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Nose sharp ; body slender.

Five toes on each foot.

SYNONIMS.

MUSTELA FURO, *Linn. Syst.* 68.

VIVERRA, *Plin. lib. viii. cap.* 55.

MUSTELA RUSTICA, VIVERRA, FURO, ICTIS, *Gefner Quad.* 762.

Raii Syn. Quad. 108.

FRET, *Klein Quad.* 63.

THE Ferret, though so frequently seen, and apparently common in this country, is by no means indigenous here, being originally a native of Africa, whence it was first introduced into Spain, to counteract the great fecundity of the Rabbits, with which that kingdom was overrun. For the same purpose, it afterwards found its way into England, where it lives and breeds, provided it be kept warm. It is, however, discoverable, that the offspring of this animal very soon degenerates, and every generation gradually loses its ferocity ; to remedy which, warreners are obliged to improve the breed, by leaving the female near the haunts of the Polecat : the produce of this mixed breed regain their original fierceness, but they lose the colour of their mother, and become darker, like the Polecat. The original colour of the Ferret is a very pale yellow ; the eyes are red and fiery, the ears round, and the nose very sharp. The length of this animal is about fourteen inches ; it is lively and active, and, being the natural enemy of the Rabbit, is not

THE FERRET.

only useful, but even necessary, in warrens, to force them out of their burrows, in order that they may be taken; for which purpose the shape and size of the body are admirably well adapted, being slender and very flexible. It seldom tears its prey, but is content with sucking its blood: it is therefore necessary, when the Ferret is turned into the hole, in pursuit of the Rabbit, that it should have a muzzle on its head, otherwise it would satiate itself with the blood of its prey, at the bottom of the hole, and, instead of returning to its master, would go to sleep there, and only wake to renew its depredations, till the cold of a northern winter put an end to its carnage and existence together: It often happens, that the Ferret gets the muzzle off his head, in which case he is generally lost, unless he is immediately dug out. Attempts are sometimes made to bring him from the hole, by burning straw and other substances at the mouth of it; but this method seldom succeeds.

The female is considerably less than the male: she produces from five or six, to nine, at a litter, twice a year.

Being a native of the torrid zone, the Ferret cannot bear the rigour of our northern climate; it is, therefore, found necessary to keep it in boxes, in a bed of wool; where it spends an idle life, between eating and sleeping, except when called upon to exercise the talents for which it is kept. It is usually fed on bread and milk.

The scent of this animal is offensive, and its manners disgusting; for, although it appears to be tame and familiar, it is so without attachment; and so great is its thirst after blood, that it has been known to attack, and even kill, children in the cradle^(A). It is very irascible, and its bite is not to be cured without great difficulty.

(A) Buffon.



Ibbetson del.

Tookey sculpt.

Published by W.Darton, J.Harvey, & W.Bell, London Nov. 1st 1799.

ICHNEUMON.

THE ICHNEUMON.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Nose sharp; body slender.

Five toes before, five behind.

SYNONIMS.

Ιχνευμων, *Arist. Hist. An.* lib. ix. c. 6.

ICHNEUMON, *Plin.* lib. viii. c. 24. *Briffon Quad.* 181.

MELES ICHNEUMON, *Hasselquist Itin.* 191.

VIVERRA ICHNEUMON, *Linn. Syst.* 63.

MUSTELA ÆGYPTIACA, *Klein Quad.* 64.

VULPECULA ZEILANICA, *Seba. Mus.* i. p. 66. tab. xli. fig. 1.

MUS PHARAONIS, *Prosp. Alpin.* i. 234. *Briffon Quad.* 181.

QUIL, VEL QUIRPELE, *Garc. Arom.* 214.

THIS beautiful little animal is the handsomest of the genus to which it belongs. It is so mild and gentle in its manners, that, in Egypt, it is domesticated like a Cat, and much esteemed for keeping the houses clear of Rats, Mice, and Serpents.

The individuals differ greatly in their size and length, being found from twenty-four to forty-two inches, including the tail, which is nearly as long as the body. The domesticated ones are generally larger than those which are wild; their colours are, likewise, more beautifully variegated. It is, in general, about the size of the common Cat, but the body is thinner and longer, and the legs shorter than those of that animal. Its general figure is like that of the Polecat, but its fur is much more beautiful and elegant, consisting

THE ICHNEUMON.

of shades of white, brown, fawn-colour, and silver-grey; forming together a most agreeable and rich mixture. The colour, however, is subject to great variety. Like its congeners, it has small eyes, but they have the colour of fire, and sparkle with the most brilliant vivacity. The ears are small, round, and almost naked; the nose long and slender. The body is thicker than that of others of this genus. The tail is covered with long hair at the base, which gives it the appearance of being very thick at that part, from which it gradually tapers to the point. The belly and throat are brown. Beneath the tail is an orifice, in which a very foetid humour is secreted. Its claws are long and sharp. When it attacks its prey, it darts on it with great velocity, and seldom misses its aim. It is a most inveterate enemy to Serpents and other noxious reptiles which inhabit the torrid zone, and displays great bravery in attacking the most dangerous kind without showing any marks of fear, even the Cobra di Capello; and should it receive a wound in the combat, is said instantly to retire^(A), in order that it may obtain an

(A) Mr. Pennant justly remarks, that "this fact is not yet well established. Botanists, he observes, are not yet agreed about the species of this fanative plant, whose use, it is pretended, this Weefel pointed out to mankind. Those who have seen the combats between the Ichneumon and Naja, or Cobra di Capello, never could discover it. Kæmpfer, a writer of the first authority, who visited India, and who kept a tame Ichneumon, and had been witness to its battles with the Serpent, says no more than, that it retired and eat the roots of any herb it met with. It is from the Indians he received an account of the root, of whose veracity he speaks with the greatest contempt. *Amæn. Exot.* 576. Rumphius never saw the plant growing; but describes it from a specimen sent him from Java; for he says, the Indians would persuade him that it had no leaves. Vide *Herb. Amboin. App.* 71. All that seems certain is, that the Indians have a plant, of whose alexipharmic virtues they have a high opinion, and are said to use it with success against the dreadful macassar poison, and the bite of Serpents. Kæmpfer says he had good success with one species, in putrid fevers, and found it infallible for the bite of a mad Dog. As there seems no doubt but that a most useful plant of this nature does exist in the Indies, it is to be hoped that strict enquiry will be made after it. In order to direct and facilitate these researches, reference may be had to *Garcia ab Horto's Hist. Aromat. in Clus. Exot.* 214. *Kæmpfer Amæn. Exot.* 573. *Rumph. Herb. Amb. App.* 29. *Amæn. Acad.* ii. 89. *Flor. Zeylanica.* 46, 190, 239."

But while we remain in this state of uncertainty with regard to vegetable antidotes; we cannot help congratulating the public on the discovery of a certain antidote to the fatal effects of the poison of snakes and other reptiles, namely, the caustic volatile alkaline spirit, forty drops of which, given internally in some water, and repeated at intervals of ten minutes, and at the same time some of the spirit being applied to the wound, never fails of curing the malady. We believe Dr. Beddows first mentioned this antidote in three

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antidote from a certain herb, after which it returns to the attack, and seldom fails of victory. It is likewise a great destroyer of the eggs of the crocodile, which it digs out of the sand; and even kills multitudes of the young of those terrible reptiles: the Egyptians, therefore, had abundant reason for ranking the Ichneumon among their objects of worship. It is more useful, for destroying Rats and Mice, than the Cat, having a much greater appetite for carnage: it is active and cunning in its mode of attack, and glides along the ground, towards its prey, like a Serpent, as if it had no feet: it sits erect like the Squirrel, and holds its food in its fore paws like that animal: it will catch any thing that is flung at it. Poultry are its favourite food, and it will feign itself dead, till they come within its reach, when it will spring on them with great velocity and unerring aim, and, after sucking their blood, draw them to its hole: it is likewise very fond of fish. When it sleeps, it brings its head and tail under its belly, and looks like a round ball with two legs sticking out. It is remarkably skilful in seizing Serpents by the throat, so as to avoid being injured by them. In a domestic state they are capable of great attachment, and will follow those they are accustomed to, like a Cat; appearing, like that animal, to be much delighted with being caressed. Mr. D'Obsonville speaks of one which he reared, and which, he says, became tamer than a Cat, and would imitate that animal in many of its actions. "One day he presented to it a small Water-serpent alive, being desirous to know how far instinct would carry it against an animal with which it was hitherto unacquainted. At first it appeared astonished and angry; its hair became erect; in an instant, it flipped behind the reptile, and, with wonderful swiftness and agility, leaped on its head, which it seized, and crushed with its teeth. This first regale seemed to have awakened its

essays, which he published from the German of Dr. Girtanner, where the curious reader will find a satisfactory account of its mode of operating. It has since been strongly recommended, and supported by some remarkable cases, in an essay, written by John Williams, esq. and published with other valuable tracts, in a late work, entitled, *Dissertations, &c. relating to the History and Science of Asia*, vol. ii, p. 222. As oil is a common remedy, in such cases, it is proper to observe, that it should never be administered with the caustic volatile alkali, as it not only retards, but even prevents, its operation; and, under all circumstances, the internal use of it does more harm than good.

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natural propensity for carnage, which had not before shewed itself: the poultry now no longer escaped unnoticed, and from this period, he never failed to take every opportunity of seizing them and sucking their blood."

The Ichneumon has a soft, small, murmuring voice; which it never exerts, unless it is struck or irritated.

These animals are found in great plenty in all the southern parts of Asia, but more particularly in Egypt. They are also found in Africa about the Cape of Good Hope.



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SKUNK

THE SKUNK.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Nose sharp; body slender.

Five toes before and five behind.

SYNONIMS.

CHINCHE, *Feuilleè Obs. Peru*, 1714, p. 272.

SKUNK, FISKATTA, *Kalm's Voyage, Forster's Travels*, i. 273. tab. ii.
Josselyn's Voyage, 85.

ENFANT DU DIABLE, BÊTE PUANTE, *Charlevoix Nouv. France*. v. 196.

SKUNK, *Pennant's Hist. Quad.* vol. ii. p. 65.

LE CHINCHE, *de Buffon*, xiii. 294. tab. xxxix. *Schreber*, cxxi.

THIS animal, known to the natives of Brazil by the name of the Chinche, is about the size of a Domestic Cat; its nose is long and slender, and extends a considerable way beyond the lower jaw; its ears are short and rounded; a white stripe is drawn from the nose over the forehead, and the upper part of the neck, till it is intersected by a black line, that commences at the tail and ascends towards the middle of the back, which would otherwise be entirely white: its belly and legs are black; its tail, abounding with long, coarse hair, is generally black; sometimes, however, it is fringed with white at the extremity: and it has been described by some naturalists as being perfectly white. The nails on each of the feet are extremely long, like those on the fore feet of a Badger.

The Skunk, like the Stifling, the Conepate, and the Zorilla, is remarkable for a foetid, suffocating vapour, which it emits from behind, as its best means

THE SKUNK.

of defence, when frightened, attacked, or pursued. The stench of this effluvia is so intolerable, that infected clothes are said to retain it several days. Dogs that are not properly bred, are so strongly affected by this smell as to abandon their pursuit; and even those which, in consequence of custom and tuition, persevere in the chase till they have slain the fugitive, are obliged to relieve themselves by thrusting their noses into the fresh soil.

Yet, notwithstanding this offensive quality, these animals are sometimes tamed, when they obediently follow their master, and are never known to emit this pestiferous odour, unless they are beaten or irritated. They are frequently killed by the Indians, who make purses of their skins, and, after cutting away the noxious glands, regale themselves on the flesh, which is said to resemble, in flavour, that of a young Pig.

The Skunk is an inhabitant of Peru, and is found in North America, as far as Canada.



The Civet Cat and Genet, from a drawing by J. G. Cooper.

CIVET CAT & GENET

THE CIVET CAT.

GENERIC CHARACTERS.

Six cutting teeth, and two canine teeth in each jaw.

Nose sharp, body slender.

Five toes on each foot.

SYNONIMS.

ZIBETTUS, *Cavi Opus*, 43.

FELIS ZIBETTUS, *Gesner Quad.* 837.

ANIMA ZIBETHICUM, *Hernandez Mex.* 580, 581.

CIVET CAT, *Raii Syn. Quad.* 178.

LA CIVETTE, *de Buffon*, ix. 299. *tab.* xxxiv.

MELES FASCIIS ET MACULIS ALBIS NIGRIS ET RUFESCENTIBUS
VARIEGATA, *Briffon Quad.* 186.

COATI CIVETTA VULGO, *Klein Quad.* 73.

VIVERRA ZIBETHA, *Linn. Syst.* 65.

THE Civet Cat bears a strong resemblance to animals of the Weasel kind in many particulars, but the nose and tail are more extended, and the animal is larger. Its length, from the nose to the tail, is about two feet three inches; the tail is fourteen inches long; the body is rather thick in proportion to the size of the animal. The ears are rounded; the eyes sky-blue; the nose sharp, and black at the tip; the front of the face and some part of the sides of the neck are of a yellowish white; the sides of the face, as also the chin, breast, legs, and feet, are black: the sides and back are of a yellowish ash-colour, beautifully marked with rows of large dusky spots: the hair, in

THE CIVET CAT.

general, is coarse; that on the top of the body particularly so, and longer than the rest, standing up like a mane: the tail varies in colour, being sometimes all black, and sometimes spotted near the base. The whole body is covered with two kinds of hair, one of which is short, soft, and of a woolly contexture, and a greyish brown colour; the other is much longer, and barred or varied with white, black, and reddish brown, which occasions the beautiful spotted and banded appearance so remarkable in this animal. The general colour of the female is paler than that of the male, and the spots are larger. Three black stripes, proceeding from each ear and ending at the throat and shoulders, add greatly to its beauty. The mouth is adorned with whiskers.

The teeth of the Civet are sharp and strong, though its claws are weak. It is active and nimble, jumping like a Cat, and running very swiftly. It feeds on small animals and birds, which it takes by surprise; and will sometimes commit depredations on the poultry in the farm yard. As its eyes shine in the dark, it is probable that it sees well by night, particularly as that is the time when it is most active.

The Civet inhabits India, the Philippine Isles, Guinea, Æthiopia, and Madagafcar; where it is very prolific, but is never known to breed in more temperate regions, although it will live in them, and appear in perfect health, producing its perfume in great abundance. The Dutch know this, and keep numbers of them alive at Amsterdam, on purpose to collect the civet they produce; the quantity of which always bears proportion to the quality of the nourishment the animal takes, and the appetite with which it eats it. Its favourite food consists of boiled flesh, rice, eggs, birds, small animals, and especially fish; and, in order to preserve it in a good state of health, its appetite should be excited by variety. Though it drinks seldom, it discharges its urine frequently.

The civet which is procured at Amsterdam is less adulterated, and therefore held in higher estimation, than that which comes from India or the Levant. To facilitate the collecting this perfume, the animal is put into a long cage, so narrow that it cannot turn itself: the cage being opened by a

THE CIVET CAT.

door at the hinder part, the creature is drawn backwards by the tail, and held securely, whilst a small spoon, or spatula, is introduced, through an orifice situated under the tail, into the pouch containing the perfume, which is carefully scraped, and the contents of it are put into a proper vessel. This operation may be performed two or three times a week ; and it is remarked, that the animal produces most after having been irritated. This perfume is so strong, that it infects every part of its body, and even the hair and skin, which retain the smell for a long time after they have been separated from it. If a person be shut up in the same apartment with it, it is almost insupportable.

Though the Civet is naturally savage, it is capable of being tamed, and rendered tolerably familiar. Its voice is stronger than that of a Cat, and somewhat resembles the cry of an enraged Dog.

The general value of civet in Holland is about fifty shillings per ounce ; but, like all other objects of taste and fashion, its price varies. It should be chosen new, of a good consistence, whitish colour, and a strong, disagreeable smell. This perfume is much more grateful than musk, to which it bears some resemblance. It formerly found its way into physicians' prescriptions, but is now quite discontinued as a medicine.

THE GENET.

GENERIC CHARACTERS.

- Six cutting teeth, and two canine teeth in each jaw.
- Nose sharp, body slender.
- Five toes on each foot.

SYNONIMS.

LA GENETTE, *Belon Obs.* 74. *de Buffon*, ix. 343. *tab.* xxxvi.

GENETHA, *Gesner Quad.* 549, 550.

COATI, GINETTA HISPANIS, *Klein Quad.* 73.

MUSTELA CAUDA EX ANNULIS ALTERNATIM ALBIDIS AT NIGRIS

VARIEGATA, *Briffon Quad.* 186.

VIVERRA GENETTA, *Linn. Syst.* 65.

THE body of the Genet is about eighteen inches long, the tail ten. The head is long and slender, ending in a sharp nose like the Civet, but the ears are more pointed. The body is clothed with two kinds of hair, the longest of which is about half an inch, and, like the Civet, possesses the variety of colour, from which the spots and marks are formed. The colour of this animal is a tawny red, spotted with black; these spots are distinct and separate on the sides, but unite together on the back, so as to form a black line or lines, which extend the whole length of the animal. The tail is beautifully annulated with tawny and black alternately. The feet are black. The Genet, like the rest of its family, is furnished with glands under its tail, which secrete a kind of perfume, somewhat resembling civet, but the smell of it is fainter, and it soon evaporates; these glands open rather differently from those of other animals of its kind.

THE GENET.

The Genet has a strong appetite for petty carnage, which renders it a very useful animal for destroying Rats, Mice, &c. in houses; as it is easily domesticated, and is a harmless and inoffensive creature, these qualities added to its excessive elegant and beautiful figure, and the value of its fur, render it a proper object of that care and attention, whereby it would become a useful addition to our stock of domestic quadrupeds. Belon assures us that he saw some at Constantinople, which were as tame as Cats, and kept the houses quite clear of Rats and Mice, who were driven from them by their smell. Upon the whole, it is a most beautiful, cleanly, and industrious little animal; is very active in pursuit of its prey, and mild and gentle in its manners.

It is found in Syria, Spain, and Turkey, frequents the banks of rivers, and avoids mountainous dry places.



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OTTER.

THE GREATER OTTER.

GENERIC CHARACTERS.

Six cutting and two canine teeth in each jaw.

Five toes on each foot; each toe connected by a strong web.

SYNONIMS.

LUTRA, *Gefner Quad.* 687. *Raii Syn. Quad.* 187.

MUSTELA LUTRA, *Linn. Syst.* 66.

UTTER, *Faun Suec.* No. 12.

WYDRA, *Rzaczynski Polon.* 221.

LE LOUTRE, *de Buffon*, vii. 134. *tab.* xi.

OTTER, *Brit. Zool.* i. 67.

THE Otter seems to constitute the link of gradation, in the great chain of nature, between terrestrial and aquatic animals; resembling the former in its shape, and the latter in being able to live for a considerable space of time under water, and in being furnished with membranes, like fins, between the toes, which enable it to swim with such rapidity, that it can overtake fishes in their own element.

The general shape of the Otter somewhat resembles that of an overgrown Weasel, being, like that animal, long and slender. Its skin is covered with very soft hair, which is generally brown; but subject to some varieties in this respect, depending, perhaps, on climate. It is usually two feet in length, from the tip of the nose to the insertion of the tail; the head and nose are broad and flat; the mouth somewhat resembles that of a fish; the eyes are small and brilliant, and placed nearer the nose than is usual in the generality of

THE GREATER OTTER.

quadrupeds; the neck is short, and as thick as the head; the body long; the tail broad at the insertion, but tapers off to a point at the end; the legs are remarkably short, strong, broad, and muscular. The joints are so loosely articulated, that the animal is enabled to bend them back, and bring them on a line with the body, so as to make them perform the office of fins. Each foot is furnished with five toes, which are connected by strong and broad webs, like those of water-fowl. This peculiar construction of the legs and feet is admirably well adapted to the purpose of swimming; for, by taking short strokes, they make them oftener and with greater velocity.

The Otter is a very voracious animal, and well known by the damage it does to fish-ponds, &c. It is always found by the sides of lakes and rivers, but more particularly the former, as being more commodious for catching its prey; for the bulk of its body giving the current of water greater power of resistance against it, than it has against the fishes, which are the object of its pursuit, if it hunts against the stream, it swims too slow; and if with the stream, it overshoots its prey. When it fixes its residence in rivers, it is always observed to pursue its prey in a direction opposite to that of the current. It destroys much more fish than it devours, and has been known to spoil a pond in a few nights. But they do the greatest damage to the nets of fishermen, which they never fail to gnaw and tear in pieces, if once entangled in them.

The Otter catches its prey in two very different manners: one is by pursuing it from the bottom upwards; the other is, by hunting it into some little corner of the pond, and there seizing it. The conformation of its lungs, which are proportionably longer than in most other quadrupeds, is well adapted to the former mode of pursuit, as it is thereby enabled to continue for a considerable time under water without inconvenience; and whatever fish happens then to pass over the place, becomes, infallibly, its prey; for, the eyes of fishes being placed so as not to see under them, the Otter attacks them by surprise from below, and seizing them by the belly, drags its prey on shore, where it often leaves it untouched, to continue the pursuit for hours together. The other method is confined to lakes and ponds,

THE GREATER OTTER.

where there is no current, and is only practised on the smaller fishes; for it is impossible to force the large ones from the deep water.

It is thus that the Otter amuses and supports itself during the summer months, and easily procures a supply of provisions, far exceeding its actual wants; infomuch that the edges of the lakes it frequents are infected by the putrid remains of half-consumed fish; the Otter never eating farther than the vent of the fish; but, when the severity of the winter has frozen over the ponds and lakes, and the heavy falls of rain have increased the currents of the rivers into rapid torrents, the Otter is often much embarrassed to procure a maintenance for itself, and is reduced to the necessity of eating grass, leaves, weeds, and even the bark of trees. It then leaves its watery abodes, to prey on Rats, insects, and even Sheep: it is satisfied with much less food, during this inclement season, than in summer; for, though it does not become quite torpid, like the Dormouse and some other animals, yet it keeps much more within its retreat, which is generally the hollow of some bank, worn away by the water. In this place it often forms a passage, which extends for several yards along the edge of the water, and has an opening at each end, through one of which it escapes, when attacked at the other.

The Count de Buffon says, that, in France, the Otter couples in winter, and brings forth its young in the spring. However true that may be in France, it is certainly not so with respect to this country; as the young never make their appearance till the latter end of summer. The account given by Mr. Lots, of the Academy of Stockholm, seems nearer the truth, who assures us, that it couples about the middle of summer, and, at the end of nine weeks, brings forth three or four young ones. The observations made by that gentleman, on this subject, appear, to be so accurate and well related, and so strongly confirmed by the personal knowledge of the late Dr. Goldsmith, that we shall not hesitate to close this account with a transcript from this ingenious essay.

“In the rivers and the lakes frequented by the Otter, the bottom is generally stony and uneven, with many trunks of trees, and long roots

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stretching underneath the water. The shore also is hollow, and scooped inward by the waves. These are the places the Otter chiefly chuses for its retreat; and there is scarcely a stone which does not bear the mark of its residence, as upon them its excrements are always voided. It is chiefly by this mark that its lurking places are known, as well as by the quantity of dead fish found lying here and there upon the banks of the water. To take the old ones alive is no easy task, as they are extremely fierce, and there are few Dogs that will dare to encounter them. They bite with great severity, and never let go their hold, when they have once fastened. The best way, therefore, is to shoot them at once, as they never will be thoroughly tamed; and, if kept for the purposes of fishing, are always apt to take the first opportunity of escaping. But the young ones may be more easily taken, and converted to very useful purposes. The Otter brings forth its young generally under the hollow banks, upon a bed of rushes, flags, or such weeds as the place affords it in greatest quantities. I see in the British Zoology a description of its habitation, where the naturalist observes, 'that it burrows under ground, on the banks of some river or lake, and always makes the entrance of its hole under water, then works up to the surface of the earth, and there makes a minute orifice for the admission of the air; and this little air-hole is often found in the middle of some thicket.' In some places this may be true, but I never observed any such contrivance; the retreat, indeed, was always at the edge of the water, but it was only sheltered by some impending bank, and the Otter itself seemed to have but a small share in its formation. But, be this as it may, the young ones are always found at the edge of the water; and, if under the protection of the dam, she teaches them instantly to plunge, like herself, into the deep, and escape among the rushes or weeds that fringe the stream. At such times, therefore, it is very difficult to take them; for, be they ever so young, they swim with great rapidity, and in such a manner that no part of them is seen above water, except the tip of the nose. It is only when the dam is absent that they can be taken; and in some places there are Dogs purposely trained for discovering their retreats. Whenever the Dog comes to the place, he soon, by his barking,

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shows that the Otter is there; which, if it be an old one, instantly plunges into the water, and the young all follow. But if the old one be absent, they continue terrified, and will not venture forth but under her guidance and protection. In this manner they are secured and taken home alive, where they are carefully fed with small fish and water. In proportion, however, as they gain strength, they have milk mixed with their food, the quantity of their fish provision is retrenched, and that of vegetables is increased, until at length they are fed wholly upon bread, which perfectly agrees with their constitution. The manner of training them up, to hunt for fish, requires not only assiduity, but patience; however, their activity and use, when taught, amply repay the trouble of teaching; and, perhaps, no other animal is more beneficial to its master. The usual way is, first to teach them to fetch, as Dogs are instructed; but, as they have not the same docility, so it requires more art and experience to teach them. It is usually performed, by accustoming them to take a truss, stuffed with wool, of the shape of a fish, and made of leather, in their mouths, and to drop it at the word of command; to run after it, when thrown forward, and to bring it to their master. From this they proceed to real fish, which are thrown dead into the water, and which they are taught to fetch from thence. From the dead they proceed to the living, till at last the animal is perfectly instructed in the whole art of fishing. An Otter, thus taught, is a very valuable animal, and will catch fish enough to sustain not only itself but a whole family. I have seen one of these go to a gentleman's pond, at the word of command, drive up the fish into a corner, and, seizing the largest of the whole, bring it off, in its mouth, to its master (A.)"

The Otter is found in all parts of Europe, north and north-east of Asia (A), even as far as Kamtschatka: it abounds in North America, particularly in Canada, where its fur is most valuable.

(A) Journal Etranger, Juin. 1755, p. 14, quoted by Goldsmith.

(B) Pennant.



Engraved by J. L. B. del. and J. W. B. sculp. Lond. in 1811.

GUINEA PIG. LONG-NOSED CAVY.
SPOTTED CAVY.

THE GUINEA PIG.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes on the fore-feet, three behind.

Ears short.

No tail, or a very short one.

SYNONIMS.

CUNICULUS VEL PORCELLUS INDICUS, *Gefner Quad.* 367.

MUS PORCELLUS, *Linn. Syst.* 79.

MUS SEU CUNICULUS AMERICANUS, *Raii Syn. Quad.* 223.

CAVIA COBAIA, *Marcgrave Brasil*, 224. *Piso Brasil*, 102. *Raii Syn. Quad.* 223. *Klein Quad.* 49.

MUS PHARAONIS, TATU PILOSUS, *Klein Quad.* 49.

CUNICULUS ECAUDATUS, *Briffon Quad.* 102.

RESTLESS CAVY, *Pennant's Syn. Quad.* 176.

LE COCHON D'INDE, *de Buffon*, viii. 1. *tab.* i.

THIS little, restless animal has the good fortune to enjoy universal admiration, without appearing to possess any one good quality which entitles him to it. Helpless and inoffensive in its nature, it scarcely possesses courage sufficient to defend itself from the attacks of a Mouse; but its animosities against those of its own species are violent and obstinate: these jealousies, which are very apparent, frequently arise from a desire of possessing the warmest place, or the most agreeable food.

It is matter of wonder, that an animal, possessing neither strength, swiftness, nor even the natural instincts of self-preservation, so observable in

THE GUINEA PIG.

most other creatures, should be able to protect itself, in its wild state, from the attacks of beasts and birds of prey; and that the species does not become extinct; which must, in many instances, be the case, did not Providence take care to maintain and continue every created species.

Though the Guinea Pig is a native of the warmer climates, it has been so long domesticated in Britain, and so widely diffused elsewhere, that it is now so universally known, as to render a very particular description of it unnecessary; we shall, therefore, only observe, that it is not so large as the Rabbit; its upper lip is partially divided; its ears large and round; its legs very short; it has four toes on the fore feet, and but three on the hinder ones; and it has no tail. These little animals vary much in colour; some are black, some white, and some barred with large blotches of black, white, and orange colour. They appear to be totally void of attachment even to their own young, which they will suffer to be taken from them, and even devoured, as soon as they are born, without discovering the least concern or reluctance, or attempting to make the smallest resistance.

The Guinea Pig moves like the Rabbit, though much slower; when it walks, it lengthens its body, and its feet are then most conspicuous; and, when at rest, it contracts itself into a heap. When kept in a room, it seldom crosses the floor, but creeps round by the wall. It strokes its head with its fore feet, like the Rabbit, and sits on its hind legs like that animal. The male usually obliges the female to go before him, and follows exactly in her footsteps. It is fond of dark and intricate retreats, where it sleeps with its companion, and seldom ventures out when danger is nigh. When about to quit its retreat, it springs forward to its entrance, where it stops to listen and look round, and if no danger is near, it sallies forth in search of food: but, on the least alarm, it instantly runs back to its hiding place. Their manner of fighting is equally singular and ridiculous: one of them seizes the neck of its antagonist with its teeth, and attempts to tear the hair from it; mean time the other turns its posteriors to its enemy, kicks up behind, like a Horse, and, by way of retaliation, scratches the sides of its

THE GUINEA PIG.

opponent with its hinder claws, so that they are frequently both covered with blood.

The Guinea Pig repofes flat on its belly, and, like the Dog, turns itself round feveral times, before it lies down, to fix on a convenient fituation. It fleeps with its eyes half open, and is extremely wakeful. The male and female never fleep at the fame time, but each by turns keeps watch while the other takes its repofe.

This animal delights fo much in cleanliness, that, if the young ones happen, by accident, to be foiled or dirtied, the female takes fuch a diflike to them, that fhe will never after fuffer them to approach her. Indeed, the whole employment of both male and female feems to confift in fmoothing each other's hair, which office, when they have mutually performed, they both turn their attention to their young ones, whose hair they take particular care to keep fmooth and even, and bite them, if they are refractory.

The voice of the Guinea Pig greatly refembles the grunting of a fmall Pig, which circumftance probably gave rife to its name; and the notes, which it utters when in pain, are very thrill and piercing.

The female goes with young about five weeks, and ufually produces three or four at a birth, and fometimes as many as twelve, which fhe fuckles for twelve or fifteen days, and then leaves them to fhift for themfelves, which, by that time they are well qualified to do. The dam, though only furnifhed with two teats, abundantly fupplies her offspring with milk; at the fame time, fhe appears fo indifferent about them, that fhe cannot diftinguifh her own progeny from another's.

The Guinea Pig feeds on vegetables of all kinds, but feems to give the preference to parfley and carrot tops. If its food is green vegetables, it never drinks; but if it is fed on bran, bread, grains, or any dry fubftance, it will drink both water and milk, which it laps with its tongue like a Cat.

This animal is a native of Brafil.

THE SPOTTED CAVY.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Generally four toes on the fore feet, three behind.

Ears short.

No tail, or a very short one.

SYNONIMS.

MUS PACA, *Linn. Syst.* 81.

CUNICULUS CAUDATUS, *Briffon Quad.* 99.

CUNICULUS MAJOR, PACA, *Marcgrave Brasíl, Piso Brasíl*, 101.
de Laet, 484.

CAVIA PACA, *Klein Quad.* 50.

MUS BRASILIENSIS MAGNUS, PACA DICTUS, *Raii Syn. Quad.* 226.

LE PACA, *de Buffon*, x. 269. *tab.* xliii.

THE Spotted Cavy bears some resemblance to the Guinea-Pig, except that it stands higher on its legs. It is about ten inches long; the head round, and rather large in proportion to the size of the body; the nose broad, and of a blackish colour; the eyes large, and prominent; the ears are broad, and almost without hair: the neck is thick; the hair coarse and short, and in general of a dusky-brown colour, elegantly marked on the sides with whitish-grey spots, disposed in lines extending from the head to the tail: the belly is white. In some individuals, which are perhaps young ones, the sides and spots are of a pale yellow: there are five toes on each foot: the tail is a mere rudiment. This little animal does not fit up to eat, as most of this genus do, but feeds on the ground, like a Pig, and makes a grunting

THE SPOTTED CAVY.

noise, like that creature, more especially when irritated, when it likewise expresses its anger by chattering its teeth. It feeds on all sorts of grain, roots, fruit, and almost all kinds of vegetables: it frequents fenny places and the banks of rivers, where it lives concealed in burrows under ground: it grows very fat, and is accordingly much fought after. As these animals seldom quit their hole during the day, they are usually discovered by Dogs, trained for the purpose, who point out their lurking places, over which the hunter digs, and when he comes near the animal, transfixes it with a knife, to prevent its escape. When pressed hard, they will bite dreadfully, and make a desperate defence. Man is not their only enemy: every beast and bird of prey watches their motions, and is sure to seize them, if they stray from home. Thus attacked on all sides, the species would soon become extinct, were not the animal so prolific, that the diminution, if any, is imperceptible.

This animal inhabits Brazil and Guiana.

THE LONG-NOSED CAVY.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes on the fore feet, three behind.

Ears short.

No tail, or a very short one.

SYNONIMS.

AGUTI VEL ACUTI, *Marcgrave Brasil*, 224. *Piso Brasil*, 102.

AGUTI OU AGOUTIS, *de Laet*. 484. *Rocheport Antilles*, i. 287.

MUS AGUTI, *Linn. Syst.* 80.

CAVIA AGUTI, *Klein Quad.* 50.

MUS SYLVESTRIS AGUTI, *Raii Syn. Quad.* 226.

CUNICULUS CAUDATUS, *Briffon Quad.* 98.

CUNICULUS OMNIUM VULGATISSIMUS, AGUTI VULGO, *Barrere
France Æquin*, 153.

L'AGOUTI, *de Buffon*, viii. 375. *tab.* 1.

SMALL INDIAN CONEY, *Brown's Jamaica*, 484.

LONG-NOSED RABBIT, *Wafer's Voy. in Dampier*, iii. 401.

THIS animal is about the size of a Rabbit: its nose is long; the upper lip is divided in the middle, like the upper lip of the Hare; the ears are short and round; the eyes black and lively; the legs almost destitute of hair, and very slender and black; the tail short and without hair: it has four toes on the fore feet, and three on the hinder ones; its hair is harsh and stiff, like that of a sucking Pig; the colour of the hair on the body is a

THE LONG-NOSED CAVY.

mixture of red, brown, and black; that which covers the rump is of a bright orange, and the belly is yellow.

This animal is very numerous in the southern parts of America, and has been called by some the Rabbit or Hare of that continent, from a supposed resemblance to one or both of those animals: it differs, however, very essentially from them in many particulars.

This little creature equals the Hog in voracity: every thing that is eatable comes alike to its insatiable appetite; and when it has eaten till it can eat no longer, it hides the remainder for a future meal. It seems to delight in gnawing and tearing every thing within its reach. When provoked, it erects the hair on its back, and strikes the ground violently with its hinder feet, like the Rabbit. It lives in cavities, which it digs for itself in hollow trees. Though its appetite is general, it gives the preference to yams, potatoes, and fruits. It sits on its hind legs to eat, like the Squirrel, and conveys the food to its mouth with its fore paws. Like the Hare or Rabbit, it runs swiftly on the plain ground or up a hill, but is in danger of falling on a descent, on account of the length of its hinder feet. Its sight and hearing are both excellent, and, if whistled to, it will stop to listen to the sound. The flesh is tolerable food, provided it be fat and well fed; but it is rather tough, and has a peculiar flavour. It is hunted with Dogs, and, if it happens to get into a place covered with sugar-canes, is easily taken, from the embarrassment it meets with; but, if it takes to the open plain, it runs freely before the Dogs, till it has gained its hole, from which nothing can force it but filling the hole with smoke. During this process, the poor little creature frequently sends forth plaintive cries, but seldom leaves the hole till the last extremity, when it once more bolts out, and depends on its speed for safety. If the Dogs come up with it, and there is no possibility of making good a retreat, it boldly faces its pursuers, and, standing on its hind feet, erects the hair on its back, and defends itself very gallantly. It will sometimes bite the legs of those who attempt to catch it, and always takes out the piece on which it fixes its teeth (A). When provoked, it makes a

(A) Rall Syn.

THE LONG-NOSED CAVY.

noise like a young Pig. It is easily tamed, if taken young, and becomes very familiar. The female selects a retired place to bring forth her young, where she constructs a bed of hay and leaves, and usually brings two at a time, which soon arrive at maturity. She breeds two or three times in the year; and often removes her young for conveniency or greater security.

The Long-nosed Cavy having been very generally, though erroneously, called by travellers, the Rabbit or Hare of the New Continent, it may not be amiss to point out a few particulars in which it either resembles or differs from those animals, with which we shall conclude this account. It resembles the Rabbit in size and in the form of the head, except that the ears are much shorter. Like the Rabbit, the form of its back resembles an arch; its hind legs are longest, and the cutting teeth are exactly alike, as to form and number. On the other hand, it differs from the Rabbit in the structure of its hair, which is not soft and downy, but hard and harsh, like that of a young Pig. The tail is likewise shorter, and entirely without hair. Lastly, the number of the toes is different, the Cavy having but three on the hinder feet, whereas the Rabbit has five. It differs, likewise, very materially from the Rabbit, in its habits and dispositions: so that, upon the whole, the supposed resemblance arises merely from the want of attentive observation.

It is found in great abundance in Brazil and Guiana, where, Mr. Buffon says, the French dress it like a sucking Pig, and esteem it excellent food; the English who reside there dress it like a Hare, with a pudding in the belly.



W. H. W. del.
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HARE.

THE HARE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Five toes before; four behind.

Ears long; tail short.

SYNONIMS.

LEPUS, *Plin. lib. viii. c. 55. Gefner Quad. 605.*

Raii Syn. Quad. 204.

LEPUS TIMIDUS, *Linn. Syst. 77.*

LE LIEVRE, *de Buffon, vi. 246. tab. 38.*

HASE, *Klein Quad. 51. Faun. Suec. No. 25.*

HARE, *Brit. Zool. 41.*

NO animal in the creation furnishes more striking proofs of the providential care of the great Creator, in the preservation of his creatures, than this little, helpless animal. Its propensities and habits, as well as the peculiar conformation of its parts, are so admirably well adapted for this grand purpose, that, without them, the species must soon become extinct. Eagerly fought after by man, as well as by beasts and birds of prey, and totally incapable of self defence, the race would soon be destroyed by its numerous enemies, were it not for the means of preservation and escape with which it is so amply furnished. The Hare owes its chief safety to its prevailing passion, fear: conscious of its weak and defenceless state, it lives in constant alarm and apprehension, which, by keeping it lean, fits

THE HARE.

it the better for escaping the impending danger by flight. The shape of the ears is admirably well contrived, to collect and convey the most distant and minute impressions of sounds; they are very long, and formed like the tubes, or trumpets, made use of by deaf persons; and, being flexible in every direction, cannot fail to catch and convey the smallest vibrations of the air. The eyes are remarkably large and prominent, and well adapted to receive the rays of light in all directions, so that the creature has no occasion to turn its head to either side, to gain information of the situation of its pursuers. Like many other animals which feed by night, the eyes are furnished with a *membrana nictitans*, which can be drawn over them at pleasure; and thus the creature is enabled to bear the light of the day, which it could not otherwise endure. The comparative length of its hind legs is, likewise, of singular service to it in peculiar situations, particularly in ascending steep and hilly places; and so sensible is the Hare of this advantage, that, when closely pursued, it always shapes its course towards rising ground. The Hare is also furnished with remarkably strong muscles, whereby it is enabled to support more fatigue than it otherwise could. Its general colour is a tawny, reddish brown, which frequently so nearly resembles the colour of the land on which it lies, that it is easily overlooked: this is another great source of its safety, and so conscious is the animal of it, that, when closely pressed by the Hounds, it will frequently squat behind a clod, and suffer the Dogs to run over it, which is no sooner perceived, than it instantly takes a contrary direction, and by this artifice often effects its escape.

In northern countries, where the severity of the winter covers the ground with perpetual snow, the colour of the Hare is always changed, during that season, from brown to white, which renders it less visible to its numerous enemies, by which it would soon be destroyed, were it not for this providential circumstance: we say providential, because the Hares which inhabit warmer climates are not subject to this change of colour during the winter season, which surely is not the effect of mere chance.

The shape, size, and general appearance of the Hare are so well known, that an accurate description of them seems needless; we shall, therefore,

THE HARE.

only remark, that the ears are tipped with black ; the tail is black above and white underneath ; and that the feet are all clothed on the underfide, with long, thick hair, even to the ends of the toes.

The fur of the Hare is generally very full of fleas ; and it would seem that these troublesome insects are particularly fond of residing in it ; for Linnæus tells us, in his account of the animals of Sweden, that the Dalecarlians manufacture a sort of clothing of this fur, which they call felt ; the wearer of which is thereby preserved from the tormenting attacks of the fleas, which all creep into the garment, and remain there.

The Hare multiplies very fast ; the female breeds three or four times in the year ; she goes with young thirty days, and usually produces from two to four at a litter ; she suckles them only twenty days, and then leaves them to shift for themselves. It feeds during the night, and remains motionless on its form during the day, unless it is disturbed. It lives entirely on vegetables, and gives the preference to the most tender blades of grass, pinks, parsley, and plants which contain a milky juice ; it is likewise fond of the bark of trees, particularly the birch, which it frequently strips of its bark in the winter.

The hair of this animal is much used in the hat manufacture ; and as the produce of this country is insufficient for that purpose, great quantities of hare-skins are annually imported from Russia and Siberia, and form a very considerable article of commerce.

The flesh of the Hare is accounted a favourite article of food, but the manner of obtaining it, by hunting, where a numerous band of dogs, accompanied by men and horses, is at once let loose on the most timid and defenceless animal in the brute creation ; where the poor creature, in its fears, is made to die a thousand deaths, seems so incongenial with our ideas of humanity and polished society, as to require our marked disapprobation. This practice is thus beautifully described by Thomson :

Vain is her best precaution, tho' she fits
Conceal'd, with folded ears, unsleeping eyes,
By Nature rais'd to take th' horizon in,

THE HARE.

And head couch'd close betwixt her hairy feet,
In act to spring away. The scented dew
Betrays her early labyrinth; and deep,
In scatter'd fullen op'nings, far behind;
With every breeze she hears the coming storm:
But nearer, and more frequent, as it loads
The fighting gale, she springs amaz'd, and all
The savage soul of Game is up at once:
The pack full-op'ning various; the shrill horn
Resounding from the hills; the neighing steed,
Wild for the chase; and the loud hunter's shout;
O'er a weak, harmless, flying creature,
Mix'd in mad tumult and discordant joy!

If the flesh of this animal is become a necessary appendage at the tables of the opulent, should it not be obtained in a manner that does least violence to the tender feelings of humanity? Indeed shooting, or taking them in traps or snares, seems less exceptionable, though not so generally practised as the method of hunting with Harriers, or small Hounds; or that of courting with Greyhounds.

The Hare is found in all parts of Europe, and most parts of Asia and North America.



Bellicia del.

W. May, sc.

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RABBIT.

THE RABBIT.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Ears long, tail short.

Five toes before, four behind.

SYNONIMS.

CUNICULUS, *Plin.* lib. viii. c. 55. *Gesner Quad.* 362.

LEPUS CUNICULUS, *Linn. Syst.* 77.

KANIN, *Faun Suec.* No. 26.

LEPUS CAUDATUS, *Briffon Quad.* 95.

LEPUSCULUS, KANINCHEN, *Klein Quad.* 52.

LE LAPIN, *de Buffon*, vi. 303. tab. 1. li.

RABBET, OR CONEY, *Raii Syn. Quad.* 205. *Pennant's Brit. Zool.* i. 90.

THE Rabbit, though not originally a native of Britain, is become so completely naturalized, and so well and universally known, that a particular description of it seems unnecessary. In its external appearance it much resembles the Hare; but it differs materially from that animal in its habits, and, notwithstanding their similitude, they cannot be brought to associate, and sometimes will fight till one of them is disabled or killed.

That great naturalist, Pliny, has judiciously remarked, that those animals which are the most innocent, and of the greatest service to man, particularly in the article of food, are generally the most prolific: this observation is in no instance more clearly verified than in the Rabbit: it produces seven times in the year, and often brings eight young ones at a birth; on a supposition,

THE RABBIT.

therefore, that this happens constantly and regularly during the period of four years, a single pair will, in that time, produce one million two hundred and seventy four thousand, eight hundred and forty: no wonder then, that Spain, a country so congenial to their constitution, should have been once so overrun by them, as to reduce the inhabitants to the necessity of sending to Africa for Ferrets to destroy them, as has been already observed in the account given of the Ferret. From this amazing disposition to increase, we should certainly be overstocked by them, were they not surrounded by a host of enemies, consisting of almost every beast and bird of prey, to whose attacks they are unable to make the smallest resistance; and, indeed, were it not for the security they find in their burrows, the race would soon be extirpated. But their greatest enemy is man, who, like a false friend, appears to take them under his protection, that he may have it in his power to destroy them when he pleases, for the sake of their flesh and skin; the former of which every one knows is an elegant article of food, and the hair of the latter is much used in the manufacture of hats; the skin, with the hair on, is also used as a substitute for fur to trim garments; and such parts of the hair as are too coarse for these purposes, are often made use of as stuffing for beds, to save the expence of feathers.

To protect them from these numerous foes, the Creator, ever watchful over the safety of his creatures, has endued them with the instinctive faculty, of forming subterraneous retreats, which are so constructed, as to be inaccessible to any but the smaller quadrupeds, and secure them entirely from the attacks of birds of prey, which are well known to avoid places impervious to light. They dig these burrows with their feet, and often extend them to a considerable length, contriving that each burrow is furnished with two apertures, which, although at a considerable distance from each other, always communicate, so that, in case of an attack, the poor animal has always a door to escape at. In these burrows it spends the day in safety, and only comes out morning and evening, to feed.

When the female is about to bring forth, she makes choice of a burrow, separate from the male, which she forms very different from the ordinary

THE RABBIT.

one, and much more intricate; at the bottom of this she constructs a spacious apartment, which she lines with down plucked from her own body, and thus forms a warm bed for the reception of her young. These she seldom leaves during the two first days, unless forced by hunger; and then she returns to them with all possible expedition. She suckles them near six weeks, when they are generally fit to come abroad, and are received, with great appearance of affection, by the male, who, though prior to that period he will frequently kill them, seems now to acknowledge his offspring, by taking them between his paws, smoothing their skins, and licking their eyes; each in its turn receiving an equal share of his caresses.

Wild Rabbits are invariably brown, but, when domesticated, become, like all other creatures taken under the protection of man, subject to almost every variety of colour. Pennant says, white Rabbits have eyes of a beautiful red colour; but this is not uniformly the case. Tame Rabbits are larger than the wild ones, but their flesh is softer, and not so high-flavoured.

The Rabbit is subject to two distempers equally fatal. The most common and dangerous of these is called the rot. This is brought on by suffering them to eat food which is too full of moisture. Their greens should therefore be always given them dry, and a proper quantity of short hay should be mixed with them. But the best food for tame Rabbits is the shortest and sweetest hay that can be procured; one load of which will maintain two hundred couple for a year: of this stock four hundred couple may be yearly consumed or sold, and a sufficient number will remain to keep up the stock, and guard against accidents: so that, reckoning the price of each Rabbit at the very moderate rate of sixpence, which is considerably below the usual value, the amount of the profits on one year's produce will be twenty pounds, which is considerably more than three hundred per cent. exclusive of the skins.

They are likewise subject to a sort of madness: when attacked with this disorder, they wallow and tumble about, with their heels upwards, and hop in a very singular manner. The cause of this disease is not certainly known, but it is generally supposed to be occasioned by the rankness of their

THE RABBIT.

food ; though, it is probable, that is not the only cause. The usual method of cure is to keep them low, and supply them plentifully with the prickly herb, called tare-thistle.

The Rabbit is a very generally diffused animal, and capable of existing in any climate which is not very cold ; but in Sweden, and the northern parts of Europe, it must be constantly housed. It is found wild in the temperate and hot parts of Europe, and the hottest parts of Asia and Africa. It is not a native of America, but increases greatly in South America.



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WOODCUT

THE BEAVER.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Five toes on each foot.

Tail compressed, and covered with scales.

SYNONIMS.

Καστωρ, *Arist. Hist. Ann.* lib. viii. c. 5.

CASTOR FIBER, *Linn. Syst.* 78.

CASTOR, *Gefner Quad.* 309. *Briffon Quad.* 90.

FIBER, *Plin.* lib. viii. c. 30.

BAFWER, BIUR, *Faun. Suec.* No. 27.

BIBER, *Klein Quad.* 91.

BOBR, *Rzacziński Pol.* 215.

BEAVER, *Brit. Zool.* 1. 70. tab. ii. *Raii Syn. Quad.* 209.

LE CASTOR, OU LE BIEVRE, *de Buffon*, viii. 282. tab. xxxvi.

THERE is nothing very remarkable in the general external appearance of the Beaver, except that its tail is very broad, flat, and covered with scales like a fish; and that its hinder feet alone are furnished with membranes which connect the toes: in other respects, it greatly resembles a very large Rat. Considered as an individual, it does not exhibit any striking instinctive qualities; but, on the contrary, is perfectly harmless and inoffensive, and seems hardly to possess cunning enough for its own defence and preservation. But if we view it living in a state of society with others of its own species, and uniting its efforts with theirs to the attainment of one great end, combining the important objects of the safety, welfare, and maintenance of

THE BEAVER.

the family or colony to which it belongs ; our wonder and astonishment will be instantly excited, and instead of the most inactive and unmeaning, we shall be led to pronounce it one of the most provident, sagacious, and active animals in the creation.

Few opportunities of observing the habits of the Beaver having occurred, to those who know how to make the proper use of them, the accounts given of it have in consequence been various, often contradictory, and always full of the marvellous ; which is not at all to be wondered at, when we reflect that the greatest part of them have been related on the authority of Beaver hunters, whose only object being to obtain the animal itself, its habits and natural history could but little concern them.

In this embarrassed situation, scarcely knowing what we ought to admit and what reject, we are happy to avail ourselves of the opportunity offered by a recent account of the Beaver, published by Captain G. Cartwright (A), who resided nearly sixteen years on the Labrador Coast, and appears to have taken great pains to acquire a knowledge of this extraordinary animal. He very judiciously apprizes the reader, that his account will appear to be very different, in many instances, from what Buffon and others have written on the subject ; and begs it may be remembered that they wrote chiefly from hearsay, but that what he advances is the result of his own actual observation.

The length of the Beaver, from the nose to the tail, is about three feet ; the tail is eleven inches long and three inches broad ; the cutting teeth are very strong, and well adapted to the purpose of gnawing wood ; the ears are short, and almost hid in the fur ; the nose is blunt ; the fore feet are small ; but the hinder ones are large and strong ; the tail is broad, almost oval, compressed horizontally, and covered with scales. The hair, or fur, with which the Beaver is covered, is generally of a dark-brown colour, with some few instances of variation to black, and very rarely white. This valuable fur is well known to be the foundation of the hat manufactory.

(A) Journal of Transactions, &c. on the Labrador Coast, by G. Cartwright, Esq. 3 vol. 4to. 1792.

THE BEAVER.

The Beaver feeds on the leaves and bark of such trees and shrubs as have not a resinous juice. Lawson says, they prefer the saffraas, ash, and sweet gum ; but Captain Cartwright asserts their favourite food to be the aspen, the birch, and the root of the water lily. When they eat, they hold the food in their fore paws, and sit up like Squirrels. The Count de Buffon, hurried on by the impetuosity of his lively imagination, has said, that “a Beaver has a scaly tail, because he eats fish ;” on which passage Mr. Cartwright pleasantly observes, “ I wonder that M. Buffon has not one himself, for the same reason, for I am sure he has eaten a great deal more fish than all the Beavers in the world put together.” The fact is, Beavers will neither eat fish, nor any other animal food whatever, but subsist wholly on vegetable substances. They bring forth their young towards the end of June, and generally have two at a time, which are for the most part male and female ; the first time of breeding, indeed, they often have but one, and some of the old ones have been known to produce three or four, and even more at a birth. The first year they are called Pappooses ; the second, Small Medlers ; the third, Large Medlers ; the fourth Beavers ; and, after that, Old or Great Beavers. The young ones continue with their parents till they are full three years old ; when they pair off, build a house for themselves, and begin to breed. Sometimes, if they are undisturbed and have plenty of provisions, they remain with the old ones, and the society is then called a double crew. Sometimes a single Beaver lives by itself, and is then called a Hermit, or a Terrier. Whatever may have been the cause which has separated these individuals from society, it is certain that they always have a black mark on the inside of the skin upon their backs, which is called a saddle, and distinguishes them from the others. Cartwright supposes this separation from society may arise from their fidelity and constancy to each other ; and that, having by some accident lost their mate, they will not readily pair again. He thinks likewise that the mark on the back may proceed from the want of a companion to keep that part warm. They move but slowly on land, and being cowardly, are easily killed, notwithstanding they are possessed of the means to make a stout resistance, as their teeth are long, sharp, and strong,

THE BEAVER.

and firmly set in their jaws, which are likewise very strong. If they chance to be met on shore by a man, they will sit down on their bottom and cry like a child. These solitary Beavers inhabit holes, which they burrow in the banks of rivers, below the freezing point, and work their way upward to the height of many feet, stocking them with provisions for the winter; but the generality of Beavers live in associated communities, consisting of two or three hundred; inhabiting houses, which they raise to the height of eight feet above the water. They build these houses on piles, and form them either round or oval, with arched tops, which give them the appearance of a dome on the outside, and within they resemble an oven. The community generally build from ten to twenty-five of these houses, the construction of which, together with the choice of a proper place, and the fitting it to the intended purpose, furnish the most striking instance of instinctive sagacity, as it is impossible these works could be accomplished without the combined assistance of many individuals, who must be mutually acquainted with each others intentions, and know how to direct their actions so as to promote the desired end. If they find a place suitable to their purpose, which is generally a pond in the vicinity of aspen and birch trees, they begin to erect their houses in the month of August. If they cannot find a spot naturally adapted to their operations, they make choice of a level piece of ground, having a small rivulet running through it, in which they construct a dam, which, stopping the course of the water, forms a pond; which they can make as deep or as spacious as they please, by proportioning the dam accordingly. These dams are formed with prodigious strength, by means of stakes driven into the ground, some say five or six feet long; these are placed in rows, and pliant twigs are wattled between them, as hurdles are made; the interstices are then filled with clay, stones, and sand, which are well rammed down. They are shaped with a slope on the side next to the water, but are perpendicular on the other side: they are ten or twelve feet thick at the base, but gradually diminish towards the top, which is usually two or three feet thick. Some of these dams are a hundred feet in length, and are exactly level from end to end. Mr. Cartwright says, he

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has walked over them with the greatest safety. Having by these means collected a sufficient quantity of water for their purpose, they begin to erect their houses near the edge of the shore. These houses are constructed of earth, stones, and sticks, cemented together with great art and ingenuity, and plaistered within as neatly as if they were built by a mason. They have but one opening(A), which is always next the water; for, were it on the land side, the frosty air would enter at that hole and freeze up the water, whereby they would be cut off from their magazine; and the cold would be greater than they could bear; for, although they are very warmly clad, it is well known that they cannot endure severe frost, but will die if exposed to it for a short time. Each house contains from two to thirty Beavers. Every Beaver forms its own bed of moss; and each family fills its magazine with provisions against the winter, which they lodge under water, and bring into their apartments as they want them(B). If there is an island in the pond, they generally make choice of that, as the safest place to build on; and the greatest number of their houses are placed on the north shore, that they may enjoy more of the sun. If the pond, in which they have lived during one winter, has plenty of their favourite food in its vicinity, and they have not been disturbed, they very rarely quit it; but if the supply of provisions runs short, they will wander about, till they have found another spot where there is greater plenty. When they remain three or four years in the same pond, they frequently erect a new house every year, although the old one is not much the worse for wear; sometimes they will repair an old one which has been forsaken, and live in that. It often happens that they build a new house upon, or close by, an old one, joining the two tops into one, and cut a communication between them from one to the other: hence it is probable that the idea of their having several apartments took its rise. They are so industrious, that even when they have laid in an abundant stock of provisions, they still go on adding to the store; and when their houses are completely finished, they still carry on fresh works; nor will they desist when the pond is frozen firmly over, but continue to work on the house for some nights

(A) Cartwright.

(B) Pennant.

THE BEAVER.

after, through a hole which they keep open on purpose, if the frost is not too severe. They forsake their houses during the summer, and ramble about from place to place, sleeping on a bed which they make of sticks shred fine, under the covert of some bush near the water side. Although the sagacity of the Beaver appears so astonishing, it is certainly not infallible; as they have been known to establish their colony in a pond, where their food was so scarce, that all have died with hunger; or to chuse a situation so flat, that a sudden thaw in the winter has flooded the whole place. Sometimes they have fixed on a brook where a thaw has swelled the stream of water to such a height as to wash away all their food, and starve them to death.

Much has been said by different writers, of their gnawing down large trees, and transporting them to their works by their united strength; but these accounts appear to have been greatly exaggerated, although there is some foundation for them. It has likewise been said, that they use their tails as trowels to plaister their houses with, but Mr. Cartwright seems to doubt this circumstance, and observes, in support of his opinion, that their tails are too heavy, and the tendons which move them too weak, to enable them to perform such an operation: he rather thinks they daub the earth on with their fore feet. He professes not to believe the assertion, that they use their tails as sledges to draw stones and earth upon, because the tail being thickest at the root and down the centre, he conceives it impossible that a stone should be kept on it, unless it were held there by another Beaver: he says, he never observed that they had removed any stones off the ground, but that they bring them in their fore paws from the sides and bottom of the pond. But what seems to put the matter out of all doubt is, that the skin on the under side of the tail never appears in the least rubbed or scratched, which would inevitably be the case, were that part made use of for the purpose of drawing heavy loads.

The skins of the Beaver form an amazing article of trade. In the year 1763, fifty-four thousand six hundred and seventy skins were sold in a single sale of the Hudson's Bay Company. They are distinguished by different appellations. Those skins which have been worn by the Indians are called

THE BEAVER.

Coat Beaver; Parchment Beaver is so called, because the under side of it resembles that substance; and Stage Beaver, which is the worst, is that which the Indians kill out of season, when they are out on their stages and journeys^(A).

The well-known, valuable drug, castoreum, or castor, is the inguinal glands of these animals; that which comes from Russia is five times more valuable than what is brought from America.

The flesh of the Beaver is esteemed good eating: it is usually preserved by drying it in the smoke, after the bones have been taken out.

The Beaver inhabits Europe from Lapland to Languedoc^(B); it is found in great plenty in the North; is met with in abundance in the Russian and Asiatic dominions; but is found in greatest plenty in North America.

“Beavers were formerly found in Great Britain; but the breed has been long since extirpated. The latest accounts we have of them is in Giraldus Cambrensis^(C), who travelled through Wales in 1188: he gives a brief history of their manners, and adds, that in his time they were found only in the river Teiri; two or three lakes in that principality still bear the name of *Llyn yr Afange*^(D), or the Beaver Lake; which is a farther proof, that these animals were found in different parts of it. But we imagine they must have been very scarce even in earlier times; for by the laws of Hoel dda, the price of a Beaver's skin (Croen Lloflydan, or the broad-tailed animal) was fixed at one hundred and twenty pence, a great sum in those days^(E).”

(A) Pennant.

(B) Buffon.

(C) Girald Camb. Itin. 178, 179.

(D) Rari Syn. Quad. 213.

(E) Pennant's British Zoology.



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HAMSTER.

MARMOT.

THE HAMSTER.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Very slender taper tail, naked, or very slightly covered with hair.

SYNONIMS.

HAMESTER, CRICETUS, *Gefner Quad.* 738. *Raii Syn. Quad.* 221.

KRIETSCH, HAMSTER, *Kramer Austr.* 317. *Zimmerman*, 343. 511.

HAMSTER, *Pennant Hist. Quad.* vol. ii. p. 206.

LE HAMSTER, *de Buffon*, xiii. 117. *tab.* xiv. xvi. *Suppl.* iii. 183.

PORCELLUS FRUMENTARIUS, *Schwenkfelde Theriotroph.* 118.

MUS CRICETUS, *Linn. Syst.* 82.

TO form an opinion of animals from their respective good or evil qualities, we should rather act like biased individuals than impartial historians; and therefore, notwithstanding the universal detestation in which the Hamster is held by the inhabitants of those countries where it abounds, we do not hesitate to assign it a place among the greatest curiosities of nature, on account of its singular habits, and those admirable instincts that conduce to its preservation: and, in this view, we presume to recommend it to the contemplation of our readers.

The head of this animal is furnished with large rounded ears, and full black eyes; its fore feet are divided into four toes, with a fifth claw; its hind feet have five toes; and its tail measures about three inches. Each cheek has two pouches, which are frequently distended with food till they seem ready to burst: its colour, on the head and back, is a reddish brown; the cheeks are red; the breast, belly, and upper part of the fore legs black;

THE HAMSTER.

each ear is diversified with white spots, and a small portion of white appears near the hind legs. Sometimes, however, these colours vary; and, it is asserted, that in the vicinage of Casan there is frequently found a family of Hamsters that are entirely black.

The habitation of this animal is exceedingly curious, and displays a considerable share of ingenuity in its construction. It consists of several apartments, designed for different purposes, and wonderfully adapted to the convenience of the inmates. The first entrance is formed in an oblique direction from the surface of the earth; and at the bottom of this entrance a perpendicular hole is sunk by the male, for his own accommodation. Various similar excavations are made by the female, for herself and young ones, as each individual has a separate apartment, and each sort of grain is deposited in a separate magazine. The depth of the caverns differs according to the age of the inhabitant; that of a young Hamster being scarcely twelve inches deep, while those of the old ones are sunk to the depth of four or five feet, and the whole diameter of the habitation, including the communications, will sometimes measure eight or ten feet.

In the month of August, the Hamsters begin to lay up a store of food, consisting of corn, beans, or peas, which they carry in their pouches to the magazines, and there clean it for their subsistence (A.) The quantity of grain found in these holes depends greatly on the sex, or age, of the animals that occupy them; but we are assured, that the old males will sometimes amass a collection of one hundred pounds weight.

At the approach of winter, the animals close the entrance which might discover their retreat, and feed tranquilly on their provisions till the season becomes very cold: they then sink into a lethargic state, which continues till the return of spring. Sometimes, however, they are disturbed by the peasants, who carefully seek out their dwellings, and dig down till they come to the hoard, in which they frequently find two bushels of good grain, besides the animals themselves, which yield valuable furs. When thus discovered, the Hamster lies upon a bed of soft straw, with its head turned under its belly,

(A) The Hamsters will carry their provisions either by grains, or in the ears or pods, and when they adopt the latter expedient, they clean out the corn, or pulse, in their holes.

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while its hind feet rest upon the muzzle. Its eyes are closed; its members perfectly stiff; and all sensation so completely suspended, that no symptom of life can possibly be perceived. Even if dissected in this state the fat seems coagulated, the intestines are cold, and the slow contracting or dilating of the heart is the only proof of existence. The animal seems to feel but little from the operation, merely opening its mouth occasionally, as if attempting to breathe, without being sufficiently sensible to awake from its profound sleep.

At the time of its annual revival, it first begins to lose the stiffness of its limbs; it then breathes deeply, and by long intervals; its first motions are attended with a frequent gasping and rattling in the throat: after some days it opens its eyes and makes an effort to stand, but its attempts, for some time, are like those of a person much inebriated: at length, however, it regains its usual attitude, and rests for a long space in perfect tranquillity, as if to recollect itself, and to recover from the effects of its strange sensations.

We have already observed that every Hamster occupies a separate apartment, and indeed the whole race is so malevolent as to reject all society with each other, excepting that which results from their short courtship. If it happens, at this season, that two males meet in search of a female, a battle immediately ensues, which generally terminates in the destruction of the weaker: the female then makes a short attachment to the victorious Hamster, and will defend him from any attack with surprising fury; but this connexion soon ceases.

The females are very prolific, bringing forth twice or thrice in a year, and producing sixteen or eighteen young ones at each litter. These, in a few weeks, are forced out of their burrows, and left to provide for their future subsistence.

The Hamster will kill and devour both its own species and other small animals, and frequently ventures to attack where he cannot possibly vanquish. Thus it is said to seize on Horses, Dogs, and even men, with incredible fury, and to submit to death rather than relinquish its hold.

The rapid increase of these animals has been almost sufficient, in some years, to occasion a dearth; but the ill effects of their fecundity are, in a

THE HAMSTER.

great measure, prevented by the ferocity with which they destroy each other upon all occasions; and by the exertions of their enemy the Polecat, which pursues them into their subterraneous retreats, and devours great numbers.

Hamsters are commonly found in Ukraine, Poland, and Germany; in all the temperate parts of Russia and Siberia; and in the Tartarian deserts. They swarm in such a manner at Gotha, that, in one year, 80,139 of their skins (A) were delivered at the Hotel de Ville of the capital (B;) these animals having been proscribed on account of their devastations among the corn.

(A) It is remarkable, that the hair adheres so closely to the skin of the Hamster, as not to be plucked off without the greatest difficulty.

(B) De Buffon, Suppl. iii. 185. quoted from Mr. Sulzer.

THE ALPINE MARMOT.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Short ears, or none.

Tail covered with hair, and of a middling length; in some, very short.

SYNONIMS.

LA MARMOTTE, *de Buffon*, viii. 219. *tab.* xxviii.

GLIS MARMOTA, *Klein Quad.* 56. *Hist. Mur. Alp.* 230.

MURMELTHIER, *Kramer Austr.* 317.

MUS MARMOTA, *Linn. Syst.* 81.

ALPINE MARMOT, *Pennant Hist. Quad.* vol. ii. p. 128.

MUS ALPINUS, *Plinii*, lib. viii. c. 37. *Agricola An. Subter.* 484.

Gefner Quad. 743. *Raii Syn. Quad.* 221.

NATURALISTS have placed the Marmot in the same class with the Hare and the Rat; and, on a careful examination of its different parts, we discover a partial agreement with both these animals: its nose, lips, and the general form of its head resembling the former; and its ears, teeth, and claws corresponding exactly with those of the latter: in other respects, however, it has no analogy to either kind, but, on the contrary, is distinguished from almost every species of quadrupeds, by various habitudes that are entirely peculiar to itself.

Its ears are round, and so short as to be almost hidden in the fur; its cheeks are large; its head, and the upper part of its body, are of a brownish ash colour, mingled with tawny; its legs and belly are reddish; its tail is

THE ALPINE MARMOT.

about half a foot long, and tolerably bushy; its body is thick; and its length, from the nose to the tail, about sixteen inches.

In its natural state it subsists on roots, vegetables, and insects; but when domesticated it will participate of other food, and is particularly fond of milk, which it laps with a murmuring noise, expressive of satisfaction.

Its dwelling is usually in subterraneous holes, consisting of two entrances and three chambers, carefully lined with moss and hay. At the approach of winter the animals retire to these asylums, and obviate the dread of intrusion by stopping up each entrance, in the most effectual manner, with earth. Here they remain, from five to twelve in a chamber, completely covered with hay, and insensible to the rigours of the season, till the invigorating influence of the sun awakens them to a sense of their wants, and calls them forth to love and industry.

When they retire to their holes, which is generally at Michaelmas, they are extremely fat, but they gradually lose their flesh, and, on their return in April, they appear lean and emaciated. If they are discovered and taken out during the torpid state, they remain insensible and inanimate, unless brought before a fire, which soon revives them.

When a number of these animals are at food, an individual is placed as a sentinel, to give timely notice of any approaching danger, which it accordingly does by a shrill whistle, that operates as the signal for a general and immediate retreat to the private caverns.

Marmots are said to be easily tamed: they are remarkably playful, and will learn to hold a stick, to dance, to exhibit a variety of gestures, and readily to obey the voice of their owner. When they are irritated, or conscious of an impending storm, they whistle with such strength and acuteness as to pierce the ear, but at other times their voice resembles the murmuring of a young puppy.

They seem to have a violent antipathy to Dogs, which they will attack fiercely upon the slightest provocation: they are very apt to gnaw linen or woollen clothes, and always eat in the manner of a Squirrel, carrying their food to their mouth with their fore paws. They produce annually, and the litter generally consists of three or four young ones.

THE ALPINE MARMOT.

Their flesh, though attended with an unpleasant odour, is sometimes eaten; but they are more frequently caught for the purpose of exhibition.

The Marmot delineated in our plate, inhabits the highest summits of the Alps and Pyrenean mountains. Some varieties are also found in Poland, Ukraine, and Chinese Tartary.





Engraved by W. D. Bartlett, J. H. B. & Co. N. York.

THE CRESTED & BRASILIAN PORCUPINES

THE CRESTED PORCUPINE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

The body covered with long, hard, and sharp quills.

The upper lip divided.

SYNONIMS.

ῥεσιζ, *Arist. Hist. An.* lib. i. c. 6.

HYSTRIX, *Plin.* lib. viii. c. 35. *Gefner Quad.* 563. *Raii Syn. Quad.* 206.

HYSTRIX CRISTATA, *Linn. Syst.* 76.

ACANTHION CRISTATUS, *Klein Quad.* 66.

LE PORC-EPIC, *de Buffon*, xii. 402.

THE general appearance of this animal, when compared with its habits, should teach us not to draw too hasty conclusions from external appearances. Formidable as he seems to be, from the weapons with which Nature has armed him, he is notwithstanding perfectly harmless and inoffensive. It must be allowed, indeed, that he appears highly irascible, which has induced the poet to call him the Fretful Porcupine; but that apparent irascibility probably arises partly from fear, and partly from the great redundancy of bile in his constitution. His sharp quills, with which he so often threatens his adversary, are never used but for his own preservation. Inoffensive in his nature, he is never the aggressor, but when roused to a necessity of self-defence, even the Lion(A) dares not attack him.

The Porcupine is in general about two feet long, from the nose to the tail, which is four inches in length. The legs are short in proportion to the body;

(A) Kolben.

THE CRESTED PORCUPINE.

there are four toes on the fore feet, and five on those behind. The head is about five inches long, the muzzle bears some resemblance to that of a Rabbit, except that it is always black; the upper lip is divided; the eyes are small; the ears resemble those of a Monkey, and are covered with very fine hair; the mouth is furnished with whiskers of a considerable length: the tongue is covered at its extremity with several little bony bodies, like teeth. The largest are a line in breadth; their extremities are sharp and divided by three notches, making as it were four small teeth of each(A). The back part of the head is adorned with a long crest composed of stiff bristles, which recline backwards; the body is covered with quills from ten to fourteen inches long; they are thickest in the middle and sharp at the points; these quills are inserted in the animal's skin in the same manner as the feathers of birds, the quills of which they much resemble in their construction; their colour is black and white alternately, which gives the animal a very beautiful appearance; the tail is covered with short, white quills, which are transparent, and appear as if they were cut off at the ends. All the quills naturally incline backwards, and the creature can erect them at pleasure, which he never fails to do when irritated; the opinion which once prevailed, that the Porcupine can dart his quills at his enemy, is now known to be entirely unfounded; the sides, belly, and legs are covered with strong bristles, and a few hairs are thinly scattered all over the skin.

When the Porcupine is hunted, or pursued by any other animal, it never attempts to bite or defend itself, but climbs up the first tree it can reach, where it remains till the patience of its adversary is exhausted; if it cannot reach a tree, and is hard pressed, it lies down on one side, and presents its quills to its enemy, in which situation it finds perfect security.

The late Sir Ashton Lever used to keep a live Porcupine, which he frequently turned out on the grass behind the house, to play with a tame Hunting Leopard and a large Newfoundland Dog. As soon as they were let loose, the Leopard and Dog began to pursue the Porcupine, who at first endeavoured to escape by flight; but finding that ineffectual, he thrust his

(A) Memoir. de l'Acad. de Scien. p. 149.

THE CRESTED PORCUPINE.

nose into some corner, making a snorting noise, and erected his spines, with which his pursuers pricked their noses, till they quarrelled between themselves, and gave him an opportunity to make his escape: we have frequently been eye-witness to this diverting scene.

The Indians make use of the quills of the Porcupine to adorn the many curious articles they make, the neatness and elegance of which would not discredit more enlightened artists; for this purpose they dye them of various beautiful colours, and split them into slips, with which they embroider their baskets, belts, &c. in a great variety of ornamental figures.

The Porcupine sleeps during the day, and feeds only by night. It has a voracious appetite, although it supports hunger for a considerable time without any apparent inconvenience. The female goes with young seven months, and produces only one at a time, which she suckles about a month; during this period, like all other females, she becomes resolute in the defence of her offspring.

This animal inhabits India, Persia, Palestine, and all parts of Africa; it is also now found wild in Italy, though not originally a native of any part of Europe. It is represented in the Plate as standing on the ground.

THE BRASILIAN PORCUPINE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

The body covered with hard and sharp quills.

The upper lip divided.

SYNONIMS.

HYSTRIX PRENSILIS, *Linn. Syst.* 76.

HYSTRIX AMERICANUS, *Raii Syn. Quad.* 208.

CUANDU, *Marcgrave Brasil*, 233. *Piso Brasil*, 99, 325.

HOITZLACUATZIN, *Hernandez Mex.* 322.

CHAT EPINEUX, *des Marchais*, iii. 303.

THIS animal is not so large as the Crested Porcupine. Its quills are likewise much shorter, being not more than three inches long; they are white, barred with black near their points, and are exceedingly sharp; its nose is short and blunt, adorned with white whiskers, and furnished underneath with a small bed of spines. It has four toes armed with very long claws on each foot, and in the place of the thumb there is a great protuberance. The tail is eighteen inches in length; that half of it which is next to the body is covered with sharp spines, the other half is naked, excepting only a few hairs; the end is strongly prehensile. It is a native of Mexico and Brasil, where it lives in the woods, and feeds indifferently on fruits and poultry. It sleeps in the day-time, and goes out during the night in search of its food. Its voice resembles the grunting of a Hog, and it makes a noise with its nostrils, as if it were out of breath. It climbs trees with great agility, and prevents itself from falling, as it descends, by twisting its tail round the branches. Its flesh is fat and well flavoured. This species is represented in the Plate standing on the bough of a tree.



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COMMON SQUIRREL.

THE COMMON SQUIRREL^(A).

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before ; five behind.

Tail long, cloathed with long hair.

SYNONIMS.

SCIURUS, *Gefner Quad.* 845. *Raii Syn. Quad.* 214.

SCIURUS RUFUS, *Briffon Quad.* 104.

SCIURUS VULGARIS, *Linn. Syst.* 86.

IKORN GRASKIN, *Faun. Suec.* No. 37.

EICHHORN, *Klein Quad.* 53.

WIEWIORKA, *Rzacinski Polon.* 225.

L'ECUREUIL, *de Buffon*, vii. 258. tab. xxxii.

THE Squirrel is perhaps the most beautiful of the British quadrupeds: elegant in its form, and lively and active in its manners, it is a universal favourite; its disposition is so gentle and familiar, that it seems to be but half savage; and as soon as it becomes a captive, it appears happy and reconciled to its situation, and presently discovers an attachment to those who feed and care for it.

The head and body of the Squirrel are shaped very much like the Rabbit; the eyes are large, black, and lively; the ears are terminated with long tufts of hair; the legs are short and muscular; those before are furnished with long stiff hairs, which project on each side, near the joint, like whiskers: the

(A) The name of this animal is derived from the Greek words *σκια*, *skia*, shade; and *ουρα*, *oura*, a tail; because it carries its tail over its head in the manner of an umbrella.

THE COMMON SQUIRREL.

fore feet are strong ; the toes are long and divided their whole length, which enables the animal to use them as hands to hold its food with ; the toes of the hind feet are likewise divided to their origin. This construction of the toes is admirably well adapted to the animal's way of life, enabling it to cling to branches of every diameter, and to run on them with the greatest security. The tail of the Squirrel differs from that of every other animal ; it is extremely long and bushy, covered with long hairs, which spread like a fan, and, when erected over its back, serves as a covering to the whole body and head : it likewise assists it greatly in leaping from tree to tree, performing the office of a rudder.

This animal sits on its hinder legs to feed, using its fore feet as hands to hold its food. It never leaves the supply of this necessary article to chance ; but, during the summer season, secures to itself a vast magazine of nuts, which it deposits in the hollow of some tree, and reserves them for winter provision. Its food during this season consists of acorns, nuts, and beech-masts ; but in the summer it feeds on fruit, and the tender buds of young shoots, particularly those of the fir, to the young cones of which it shews a great partiality.

The Squirrel is fond of warmth, and will creep into a sleeve or pocket, to procure itself the enjoyment of it. It constructs its nest of moss, twigs, and dry leaves, which it places between the clefts of the branches where the tree begins to decay, and weaves them together with so much art and strength, that they resist the impulse of the most violent storm without receiving any damage from it. The nest is covered on all sides except two openings, which are left to enter at ; of these it always stops that which is next to the wind : over the top of the nest a kind of canopy is constructed, shaped like a cone, to defend it from the attacks of rain.

The spring, which is the usual season for love, shews its influence over these little creatures ; at this time, Mr. Pennant remarks, it is entertaining to see the female seeming to attempt an escape from two or three males, which pursue her, by jumping and leaping from branch to branch with astonishing agility. She brings forth from three to five young ones at a birth, about the

THE COMMON SQUIRREL.

middle of May; her period of gestation is about six weeks, and this happens but once a year.

The Squirrel seldom makes any noise, except when it experiences either pain or pleasure; in the former of which situations it utters a sharp piercing note, and in the latter makes a noise not unlike the purring of a cat.

This pretty, little creature has but few enemies, and being surrounded by plenty, appears to lead a happy, playful life; sometimes, indeed, it happens that its peaceful retreat is attacked by the Martin, who, after destroying the little family, takes possession of their habitation for its own use, and thus adds cruelty to injustice; but this is a misfortune which happens but seldom.

Linnaeus, Scheffer, and other naturalists of undoubted credibility, assert, that the Squirrel uses its tail, as a sail, to assist it in crossing rivers, which in Lapland they often do in large bodies. When they are on a journey, and their course is interrupted by a river, they all return to the next forest, as if by mutual consent, and provide themselves with a piece of the bark of a tree, with which they return to the river, and launching their little boat, jump on it with great agility, when, erecting their broad tail like a sail, they are wafted by the wind to the opposite shore. In this manner they often cross lakes of several miles in breadth, and if the weather is calm and fine, have a pleasant and prosperous voyage; but it often happens that a single gust of wind overturns the whole fleet, and consigns the little, hardy adventurers to the watery grave. When such a catastrophe happens, the Laplanders consider it as a most fortunate event; and collect the dead bodies as they are washed on shore, the flesh of which they eat, and sell the skins.

The common Squirrel inhabits Europe, North America, and the northern temperate parts of Asia, and a variety is found as far south as the island of Ceylon^(A). In Sweden and Lapland the colour of the hair changes to grey in the winter. A black variety is sometimes found in Russia and Lapland; and in many parts of England a beautiful variety occurs with tails as white as snow.

(A) Pennant.



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GREY SQUIRREL,
GROUND SQUIRREL.

THE GREY SQUIRREL.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Tail long, and clothed with long hair.

SYNONIMS.

SCIURUS CINEREUS, *Linn. Syst.* 86.

LE PETIT-GRIS, *de Buffon*, x. 116. *tab.* xxv.

GREY SQUIRREL, *Pennant Hist. Quad.* vol. ii. p. 144.

FOX SQUIRREL, *Lawson's Carolina*, 124.

SCIURUS CINEREUS VIRGINIANUS MAJOR, *Raii Syn. Quad.* 215.

THE size of this animal is similar to that of a young Rabbit. Its ears are short and plain; its coat of a grey colour, mingled with black, and sometimes tinged with dirty yellow. Its belly and the insides of its legs are white; and its tail, which is long and bushy, is grey, diversified with white and black.

These creatures are very numerous in Peru, Chili, and North America, where they commit great depredations on the plantations of maize, by running up the stalks and eating the young ears. On this account they have been proscribed by the provinces, and a reward of three-pence per head is given for every one that is killed (A.)

They make their nests in hollow trees, with straw, moss, wool, &c. and form subterraneous magazines for their stock of winter provisions. They are particularly industrious at the approach of bad weather, and frequently

(A) Such numbers of these animals were destroyed in one year, that Pennsylvania alone paid 8000*l.* of its currency in rewards.

THE GREY SQUIRREL.

visit their hoards, which, however, are sometimes destroyed by swine, and occasionally covered with snow to such a height, that the Squirrels perish for want.

The Grey Squirrel, though not easily shot on account of its activity, may be domesticated with facility. Its actions are similar to those of the Common Squirrel; its flesh is reckoned very delicate; and its fur, imported in great quantities under the name of *petit-gris*, is very valuable.

THE GROUND SQUIRREL.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Tail long, clothed with long hair.

SYNONIMS.

SCIURUS LISTERI, *Raii Syn. Quad.* 216.

SCIURUS MINOR VIRGATUS, *Nov. Com. Petrop.* v. 344.

SCIURUS CAROLINENSIS, *Briffon Quad.*

SCIURUS STRIATUS, *Linn. Syst.* 87. *Klein Quad.* 53.

BOERN-DOESKE, *le Brun Voy. Moscov.* ii. 432.

MOUSE SQUIRREL, *Josselyn's Voy.* 86.

GROUND SQUIRREL, *Pennant Syn. Quad.* 216. *Lawson's Carolina,*

41. 75. *Edwards,* 181. *Kalm.* i. 322. *tab.* i.

LE SUISSE, *de Buffon,* x. 126. *tab.* xxviii. *Charlevoix Nouv.*

France, v. 198.

THIS beautiful little animal is of a reddish brown colour; its back is marked with a black stripe, which extends the whole length; and on each side are two black lines, extending from the ear to the tail; these lines approximate at the extremities, and gradually separate towards the middle, and between them is an elegant stripe of pale yellow: the breast and belly are white; the nose and feet are of a pale red: the eyes full and prominent; and the ears plain, having no tufts of hair upon them. The tail is not so large as that of the Common Squirrel.

THE GROUND SQUIRREL.

This animal differs greatly from the Common Squirrel in its habits. Timid and wild in its disposition, it cannot be tamed without the greatest difficulty, and seldom discovers any marks of attachment; it never ascends trees, except when it is pursued, and cannot escape by any other means.

The Ground Squirrel lives in burrows, which it forms for itself underground; these it constructs with two entrances, both for conveniency and security. Although these retreats are constructed in the dark, they are formed with great skill: they consist of a long gallery, which branches on each side into two avenues, each terminating in a large chamber, which serves as a magazine, or storehouse, for their stock of winter provisions. In one they deposit acorns, in another hickory nuts, in a third maize, and in the fourth the chinquapin chefnut, which is their favourite food (A.)

They seldom stir out of their burrows during the winter, unless their stock of provisions is exhausted: when that happens, they dig their way into cellars where apples are kept, or into granaries of maize, where they do great mischief. On these occasions they are often interrupted by Cats, which destroy great numbers of them. These Squirrels are very active in the maize harvest, biting off the ears, and cramming their mouths full of the grain. It appears that they give the preference to certain foods, for if they are going home with their mouth full of rye, and chance to meet with wheat, they instantly get rid of the former, and fill their mouth with the latter.

The Ground Squirrel inhabits the vast forests of North America, where it is found in great abundance; it is likewise found in the northern parts of Asia.

The skin of these animals is of little value: it is, however, sometimes used as a lining for cloaks.

(A) Pennant.



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JERBOA.

THE JERBOA.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Fore legs very short; hind legs long, and similar to those of cloven-footed water-fowl.

Tail very long, and tufted at the end.

SYNONIMS.

MUS BIPES, *Plinii*, lib. x. c. 65. *Texeira's Travels*, 21.

LE JERBO, *de Buffon*, xiii. 141.

EGYPTIAN JERBOA, *Pennant Hist. Quad.* vol. ii. p. 164.

GERBUA, *Edw.* 219. *Plaiisted's Journal*, 59.

MUS JACULUS, *Linn. Syst.* 85.

THIS animal is said to be the Lamb of Israel, and is supposed to have been designated in Scripture by the name of the Coney, as our Rabbit was unknown in Palestine. It is also the Mouse spoken of in the lxvi. chapter of Isaiah's Prophecies: *Achbar* signifying, in the original, a male Jerboa.

The head of the Jerboa greatly resembles that of a Rabbit: its ears are thin, broad, and erect; its eyes large and full; and its whiskers long. The length of its fore legs is but one inch, and the use of them is chiefly to convey victuals to the mouth; they are divided into five toes, and pointed with sharp claws. The hind legs are two inches and a quarter long, slender, and very similar to those of a bird; having but three toes on each, and the middle one the longest. The length of the body is about seven inches and a quarter, and that of the tail ten inches. The head, sides, back, and thighs, are clothed with long hair, ash coloured at the bottom, and of a pale tawny at the ends; the breast and belly are white; and the upper part of the

THE JERBOA.

thighs is marked with a broad dusky band, in form of a crescent. Its tail is terminated with a black tuft, the tip of which is white.

Equally curious for its motions and construction, the Jerboa always stands on its hind feet, runs with great speed, and when pursued will take successive leaps of five or six feet from the ground. It does not follow a direct course, but turns frequently to the right and the left, till at length it gains a burrow, and there secretes itself from observation. When in the act of leaping it carries its tail stretched out, but in standing or walking it carries it in the form of an S, the lower part touching the ground.

The Jerboa is a lively, inoffensive animal, subsisting entirely on vegetables, and burrowing in the earth like a Rabbit. It forms its nest of the most delicate herbage, rolls itself up with its head between its thighs, and sleeps away the dreary months of winter without requiring any nutriment. When first taken it utters a plaintive cry, but soon becomes tame and docile under confinement.

It is found in Egypt, Barbary, Palestine, the deserts between Bassora and Aleppo, the sandy tracts between the Don and Volga, and on the hills south of the Irtysh, from Fort Janiyschera to the commencement of the Altaic mountains.



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BROWN RAT
&
WATER RAT.

THE BROWN RAT.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Slender taper tail, naked, or very slightly haired.

SYNONIMS.

NORWAY RAT, *Br. Zool.* i. No. 26.

LE SURMULOT, *de Buffon*, viii. 206, *tab.* xxvii.

BROWN RAT, *Pennant Hist. Quad.* vol. ii. p. 178.

MUS DECUMANUS, *Pallas nov. sp. fasc.* i. 91.

THIS bold invader, commonly distinguished by the name of the Norway Rat, was a stranger in Great Britain about sixty years ago; since that period, however, it has nearly extirpated the Black Rat, which was formerly universal in the country, and has increased with such rapidity, that every attempt to exterminate it has proved ineffectual. It is now commonly found in most parts of Europe, India, Persia, and Russia. Mr. Pennant alludes to an immense migration of these animals, which arrived, some years ago, from the west at the town of Jaik; and to an equal number which, in the year 1727, appeared in the vicinage of Astracan, completely filled the bed of the Volga, and infested the houses in a most dreadful manner.

The Brown Rat is about nine inches long. Its head, sides, and back, are of a light brown colour, mixed with ash and tawny; its breast and belly are of a dirty white; its feet naked and of a dark flesh colour; the length of its tail is equal to that of its body; and its usual weight about eleven ounces.

THE BROWN RAT.

Like the Water Rat, it can dive or swim with facility, and commonly burrows on the sides of ponds, ditches, or rivers, where it finds a partial subsistence among fishes, frogs, and small animals: its rapacity, however, is by no means confined to these, as it destroys game, poultry, fruits, and grain with equal avidity. Its disposition is bold and fierce, and when assailed or pursued it will fasten on the hand or stick of its enemy. During the summer it remains in the fields, but on the approach of cold weather it seeks a shelter in some dwelling-house, to the great annoyance of the proprietors.

The females of this species are exceedingly prolific, commonly bringing from twelve to eighteen young ones at a time. Providence has, however, wisely decreed that this surprising increase should suffer a constant diminution from the insatiable appetite of these animals, which induces them to feast upon each other. They have also many formidable and inveterate enemies, that hunt and destroy them upon every occasion; among these we must rank the Cat, the Weasel, and several sorts of Dogs, all of which prove subservient to the interests of man, who aids their vigorous exertions by a variety of inventions.

A truly curious circumstance is mentioned in Mr. Bewick's History of Quadrupeds (A) concerning these animals. It is there said, that the skins of such as have been devoured in their holes have frequently been discovered turned inside out, every part being inverted, even to the ends of the toes. It is impossible to ascertain the mode of performing this operation, but it most probably results from the method of eating out the flesh.

(A) Vide Bewick's History of Quadrupeds, p. 412.

THE WATER RAT.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Slender taper tail, naked, or very slightly haired.

SYNONIMS.

WASSER-MAUS, *Kramer Austr.* 316.

LE RAT D'EAU, *De Buffon*, vii. 348. *tab.* xiii.

MUS AQUATILIS, *Gefner Quad.* 732. *Raii Syn. Quad.* 217. *Klein Quad.* 57.

WATER RAT, *Pennant Hift. Quad.* vol. ii. p. 182.

MUS AMPHIBIUS, *Linn. Syn.* 82.

THIS variety is rather smaller than the Brown Rat: its nose is thick; its eyes small, and its ears hid in the fur: its teeth are large, strong, and yellow. Its head and body are thickly covered with long hair, chiefly of a dark brown colour mingled with red. Its belly is grey, and its tail black, except the termination, which is white. The length of the body, from the tip of the nose to the insertion of the tail, is about seven inches; but that of the tail is two inches less.

This animal commonly frequents the sides of rivers, lakes, and other pieces of water, where it burrows, and brings forth its young, generally, by six at a time. It feeds on insects, frogs, small fish, and spawn; but is occasionally devoured itself by the pike. The idea which some authors have entertained of it as being web-footed, is erroneous; yet it can dive and swim with remarkable facility.

It is universally known as an inhabitant of Europe; and is found in the north of Asia and North America.



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MICE.

Dwarf

Long-tailed Field Common

Shrew

Short-tailed Field Water Shrew

THE COMMON MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before; five behind.

Tail very slender and taper; naked, or very slightly haired.

SYNONIMS.

MUS MUSCULUS, *Linn. Syst.* 83.

MUS CAUDA LONGISSIMA, *Briffon Quad.* 119.

MUS DOMESTICUS, *Gefner Quad.* 714. *Raii Syn. Quad.* 218.

MUS MINOR, *Klein Quad.*

MAUSS, *Kramer Austr.* 316.

LA SOURIS, *de Buffon*, vii. 309. *tab.* lix.

THIS little domestic animal is so well known, that a particular description of it is wholly unnecessary. It is naturally the most timid of quadrupeds; yet necessity teaches it an appearance of boldness and familiarity; and, being unable to provide for its own wants, it follows man wherever he fixes his abode, and is his constant, though unwelcome, attendant; and, so great is its apparent attachment, that, when it has once fixed its residence, it is impossible to dislodge it but by actual destruction. Notwithstanding its predilection for the habitations of man, it cautiously shuns his presence, and, as if conscious of the mischief it does him, seems anxious to shun the punishment due to its petty offences. All its motions seem to be prompted either by fear or necessity: it never quits its retreat but in search of food, and for this purpose it generally prefers the night, and seldom ventures far from home, and, on the least appearance of danger,

THE COMMON MOUSE.

infantly flies to its retreat. No animal is so incapable of self-defence as the Mouse, nor has any one more enemies: besides the great destruction occasioned by the contrivances of man, it is in constant danger from the attacks of the Cat, the Owl, the Hawk, the Weasel, the Snake, and the Rat, with many others, which destroy this species by millions; in short, it would be soon extinct, were it not for its natural fears and astonishing fecundity. The Mouse brings forth its young many times in the year, and at all seasons, and produces from six to ten at a litter; the young ones are produced without hair, but are able to shift for themselves in about a fortnight after their birth. Aristotle gives us an idea of their amazing increase, by assuring us, that, having put a female Mouse, with young, into a vessel of corn, in some time after he found one hundred and twenty Mice, all sprung from one dam (A.)

The Mouse is not only an inhabitant of man's dwellings; it is also frequently found, in great abundance, in farmers' yards, among the ricks of corn; but it shuns those ricks which are infested with Rats. They are generally found most numerous on the south-west side of the rick, which is most exposed to the rain, and may often be seen in the evening, venturing forth to drink the little drops of rain or dew, which hang at the ends of the straw. As the Mouse quickly arrives at a state of maturity, the duration of its life is but short, seldom exceeding the term of two or three years. The Mouse inhabits all parts of the world, except the arctic regions: it has always been found in almost all parts of the old continent, and has been exported to the new (B.)

The ingenuity of man has contrived various means of destroying this little animal; the curious reader will find a great variety of traps, adapted to this purpose, very minutely described by Gefner.

A beautiful and elegant white variety of the Mouse is sometimes met with, the eyes of which are bright scarlet, like the eyes of the White Rabbit, and, from their prominence and brilliancy, make a very splendid appearance among the snowy fur of the animal.

(A) Pennant.

(B) Lisle's Husbandry, vol. i. p. 391.

THE COMMON MOUSE.

Though prejudice and apprehension have attached a kind of disgust to the sight of this little animal, it is nevertheless, when viewed dispassionately, a most elegant creature: its colour is pleasing; its hair is soft and sleek; its eyes bright and lively; its limbs are most delicately formed, and its motions full of lively action: to which we may add, that it is cleanly in the extreme.

THE DWARF MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before; five behind.

Tail very slender and taper; naked, or very slightly haired.

WE are obliged to Dr. Sparrman for the discovery of this beautiful little quadruped, which is supposed to be the most diminutive that is known in the world.

The top of the head is black; the eyes are encircled by a broad border of white; the nose is white; and the back, sides, and legs are of a ferruginous brown. The back is adorned by four black stripes, which extend from the nape of the neck, the whole length of the body, to the tail. It is found in the interior parts of the country behind the Cape of Good Hope.

THE LONG-TAILED FIELD-MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Tail very slender and taper; naked, or very slightly haired.

SYNONIMS.

MUS AGRESTIS MINOR, *Gefner Quad.* 733.

MUS DOMESTICUS MEDIUS, *Raii Syn. Quad.* 218.

MUS SYLVATICUS, *Linn. Syft.* 84.

MAUSS MIT WEISSEN BAUCH, *Kramer Austr.* 317.

MUS CAUDA LONGA, *Briffon Quad.* 123.

LE MULOT, *de Buffon*, vii. 325. *tab.* xli.

THIS animal greatly resembles the Common Mouse in its form, but it is rather larger. In its colour it resembles the Norway Rat, the head, back, and legs being of a yellowish brown; the breast is of an ochre colour, and the belly is white. Its eyes are remarkably large and prominent. It measures four inches and a half, from the tip of the nose to the insertion of the tail, which is four inches in length, and is slightly covered with hair.

This species of Mouse is found only in fields, woods, and gardens: it feeds on nuts, beech-masts, acorns, and all kinds of grain, which it collects during the summer and autumn, and forms large magazines for a winter supply. The smell of this buried corn often tempts Hogs to do much damage to the fields, by digging up the ground in search of these hoards. If they are short of provisions, they will devour each other, and even their own young. They make a nest near the surface of the earth, and often in a thick

THE LONG-TAILED FIELD-MOUSE.

tuft of grafs; they are very prolific, and produce from feven to ten little ones at a birth.

This Moufe feldom makes its appearance in the winter, during which inclement feafon it lies fheltered under the ground, in a warm bed, which it conſtructs of dry grafs and leaves; but, during the harveſt time, it is ſeen in great numbers among the ſheaves and ricks of corn. This ſpecies is found all over England, in ſome parts of which it is called the Bean-Mouſe, from the great havock it makes among the beans, when they are newly-fown (A.)

(A) Pennant.

THE SHORT-TAILED FIELD-MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Tail very slender and taper; naked, or very slightly haired.

SYNONIMS.

MUS AGRESTIS, *Raii Syn. Quad.* 218.

MUS TERRESTRIS, *Linn. Syst.* 82.

MOLLE, *Faun. Suec.* No. 31.

MUS CAUDA BREVI, *Briffon Quad.* 125.

ERDZEISL, *Kramer Austr.* 316.

LE CAMPAGNOL, *de Buffon*, vii. 369. *tab.* xlvii.

THIS species of Mouse is remarkable for the prominence of its head, which gives that part the appearance of being remarkably large; the nose is blunt; the ears are short, and almost hid in the fur; the eyes are full and prominent; the tail is short. The general colour of the head and upper part of the body is a rusty brown, mixed with black; the belly is of a deep ash-colour; its length, from the nose to the insertion of the tail, is about three inches; the tail is one inch and a half long; it is very thinly covered with hair, and is terminated by a small tuft.

This species, like the Long-Tailed Field-Mouse, feeds on nuts, acorns, and corn, and lays up a store of provisions for the winter; and, Mr. Buffon assures us, these hoards will contain sometimes more than a bushel at a time.

THE SHORT-TAILED FIELD-MOUSE.

This animal inhabits Europe: in England it is chiefly found in moist meadows, where it makes its nest underground, and brings forth eight young ones at a time, for which it has a strong affection. With us it seldom infests gardens; but, in Newfoundland, where it breeds in great abundance, it does much mischief to those places.

THE WATER SHREW MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw, pointing forward.

Nose long and slender: ears small.

Five toes on each foot.

SYNONIMS.

MUS ARANEUS DORSO NIGRO, VENTREQUE ALCO, *Merret Pinax.* 157.

SOREX FODIENS, *Pallas.*

LA MUSARAIGNE D'EAU, *de Buffon*, viii. 64. *tab.* xi.

WATER SHREW MOUSE, *Brit. Zool. illust. tab.* cii.

THIS species is considerably larger than the Shrew Mouse: it measures three inches and three quarters, from the extremity of the nose to the insertion of the tail, which is two inches in length. Its nose is long and slender; its ears and eyes are very small, and both are nearly concealed in the fur; the colour of the head and upper parts of the body is a very dark brown, approaching nearly to black; the throat, breast, and belly, are of a light ash-colour: beneath the tail is a dusky, triangular spot.

This animal frequents the banks of rivulets and marshy places, where it lives in burrows, in which it makes its nest. It is met with in most parts of Europe. Mr. Pennant says it has been long known in England, but was lost till May, 1768, when it was again discovered in the fens near Revelly Abbey, Lincolnshire. The fen-men call it the Blind Mouse.

Doctor Pallas discovered it at Berlin, where it is called Gröber, or the Digger.

THE SHREW MOUSE.

GENERIC CHARACTERS.

Two cutting teeth in each jaw, pointing forward.

Nose long and slender; ears small.

Five toes on each foot.

SYNONIMS.

Μυγαλη, *Ælian Hist. An.* lib. vi. c. 22.

Μυογαλη, *Dioscorid.* lib. ii. c. 42.

MUS ARANEUS, *Agricola An. Subter.* 485. *Gefner Quad.* 747.

MUS ARANEUS, SHREW, SHREW-MOUSE, OR HARDY SHREW, *Raii Syn. Quad.* 233.

SOREX ARANEUS, *Linn. Syst.* 74.

NABBMUS, *Faun Suec.* No. 24.

SPITSMAUS, *Klein Quad.* 57. *Kramer Aufr.* 317.

MUS ARANEUS, *Briffon Quad.* 126.

LA MUSARAIGNE, *de Buffon*, viii. 57. *tab.* x.

SHREW MOUSE, *Brit. Zool.* i. 112.

FÆTID SHREW, *Pennant Syn. Quad.* 235.

THE Shrew Mouse is readily to be distinguished from all other Mice, by the extraordinary length of its nose, which somewhat resembles that of the Hog. It is rather smaller than the Common Mouse, measuring only two inches and a half from the end of the nose to the insertion of the tail, which is one inch and a half long.

The head is rather large, in proportion to the size of the body; the ears are short and rounded; the eyes small, and almost hid in the fur; the nose is

THE SHREW MOUSE.

long and slender, greatly resembling that of the Hog; the upper mandible extending considerably beyond the lower. The head and upper part of the body are of a brownish red colour; the belly is of a dirty white. This little animal differs considerably from the Common Mouse, in the number of its teeth, sixteen being the number usually found in animals of that kind; whereas, the Shrew Mouse has no less than twenty-eight; but the difference of the two upper incisive teeth is still more remarkable; they are not only very sharp, but are furnished on each side, at the point, with an apparatus, not unlike the barbs of an arrow, which is so small, that it is scarcely visible, but on the closest inspection; it is, however, admirably well adapted to the purpose for which the little creature uses it, namely, that of drawing little worms out of their retreats in the earth, which we have often seen it do with great address and dexterity, and afterwards devour them; and, although it will eat other insects, and even corn, yet its favourite food seems to be worms, as it is frequently seen on dunghills, routing in the muck, with its long snout, like a Hog, in search of its favourite food. And here the kind care of Providence is no less visible, in constructing its snout of such a length and form as seems best suited to the supply of its necessities. From its habits of living, as it were, among filth and nastiness, it contracts so disagreeable a smell, that Cats will not eat it when they have killed it.

This little animal is a general inhabitant of Europe: it is frequently found in old walls, among heaps of stones and rubbish; it likewise frequents hayricks, dunghills, and necessary houses. It constructs a nest of hay, moss, &c. which has an aperture scarcely visible: in this it deposits its young, of which it produces four or five at a litter. It is a harmless little animal, and does not do much mischief to the corn.

The month of August seems peculiarly fatal to these little creatures, great numbers of them being found dead in the fields, paths, and roads, about that time.



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LAPLAND MARMOT.

THE LAPLAND MARMOT, or LEMMUS.

GENERIC CHARACTERS.

Two cutting teeth in each jaw.

Four toes before, five behind.

Slender, taper tail, naked, or very flightly haired.

SYNONIMS.

LEEM VEL LEMMER, *Gefner Quad.* 731.

LE LEMING, *de Buffon*, xiii. 314.

MUS NORVEGICUS VULGÒ LEMING, *Raii Syn. Quad.* 227.

MUS LEMMUS, *Linn. Syst.* 80.

CUNICULUS CAUDATUS AURITUS, EX FLAVO, RUFO ET NIGRO
VARIEGATUS, *Briffon Quad.* 100.

IN consequence of the uncertainty that exists respecting the native place of this little animal, it has been seriously supposed, by the ignorant and superstitious, to have descended from the clouds in showers of rain.

The species is only found in the northern parts of Europe, Asia, Norway, Sweden, and Lapland, where it is sometimes seen in immense numbers, overspreading large tracts of country, like the army of locusts described by the prophet Joel. Innumerable troops of them march together, in regular lines, about three feet asunder, and, like a resistless torrent, mark their course with ruin and desolation. No opposition impedes their progress; fire and water are passed with equal facility, and, though thousands should be destroyed, thousands would still supply their place, and the number would seem to suffer no sensible diminution. They bend their course straight forward with incredible obstinacy, swimming over lakes and rivers,

THE LAPLAND MARMOT, OR LEMMUS.

travelling the greatest mountains, and attacking every object that would attempt to turn them. If they meet a peasant they will leap as high as his knees in defence of their progress, boldly lay hold of a stick, and suffer themselves to be swung round before they will quit it. If they receive a blow, they will immediately revenge the injury with their teeth, and make a noise like a dog.

Their march is generally performed in the night, as they devote the day to rest, or to the destruction of every root and herb they meet with. They are even said to infect the very ground, and it is asserted that cattle will inevitably perish on tasting the grass which they have touched. The supposition, however, that they are themselves poisonous, is certainly erroneous; as they are frequently eaten by the Laplanders, who compare their flesh to that of Squirrels.

So numerous and truly formidable an enemy would certainly depopulate the countries they pass through, if their migration occurred frequently: this, however, seldom happens above once or twice in twenty years, and even then it fortunately turns out that their insatiable rapacity finally impels them to destroy each other. After they have utterly destroyed their means of subsistence, they are said to divide into two bodies, which, like hostile armies, engage with incredible hatred, and continue fighting, or devouring each other, till both parties are destroyed, and the air is actually contaminated by their putrid carcases. Great numbers of them also fall a sacrifice to the Foxes, Weasels, Lynxes, and other animals which follow them during their migration.

The ordinary length of the Lemmus is about five inches from the nose to the tail. Its head is pointed: its mouth small, and furnished with long whiskers: its eyes are black: its ears small, and reclining backwards. Each jaw contains two long cutting teeth, and the upper lip is divided. The fore feet are divided into four slender toes, and a sharp claw, like a cock's spur, in place of a thumb: the hind feet are furnished with five toes. The skin of the animal is extremely thin, and its tail short. The colour of the head and body is black and tawny, disposed in an irregular manner; the belly is white, and slightly tinged with yellow.

THE LAPLAND MARMOT, OR LEMMUS.

The females breed several times in the year, and bring forth five or six young ones at a birth. Sometimes their migration happens at the season of parturition, and in that case they carry their litter with them, holding some in their mouths and others on their backs.

Naturalists have not yet been able to ascertain where these wonderful animals are collected. Linnæus asserts that they are produced among the Lapland and Norwegian Alps; and Pontoppidan imagines that Kolen's Rock, which divides Nordland from Sweden, is the place of their nativity. These, however, are but conjectures; and we can only say with Mr. Pennant, that these quadrupeds pursue their fate, as, wherever they come from, none return.



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HEDGE HOG & COMMON MOLE

THE COMMON MOLE.

GENERIC CHARACTERS.

Long nose; upper jaw much longer than the lower.

No ears.

Fore feet very broad, with scarcely any apparent legs before; hind feet small.

SYNONIMS.

TALPA, *Gesner Quad.* 931. *Klein Quad.* 60.

MULLVAD, *SURK. Faun. suec.* No. 23. *Br. Zool.* i. 108.

KRET, *Rzacinski Polon.* 236.

EUROPEAN MOLE, *Pennant Hist. Quad.* vol. ii. p. 229.

LA TAUPE, *de Buffon*, viii. 81. *tab.* xii.

TALPA, THE MOLE, MOLD-WARP, OR WANT, *Raii. Syn. Quad.* 236.

TALPA EUROPEUS, *Linn. Syst.* 73.

FEW subjects of natural history are, in reality, more worthy our consideration than the animal delineated in our plate; for, whilst the birds are permitted to transport themselves at pleasure through the regions of the air, the fishes to sport securely in the bosom of the ocean, and the majority of quadrupeds to enjoy the umbrageous wood, the verdant hill, or the enamelled meadow, the Mole is destined to seek its food beneath the surface of the earth, and to fix its habitation in darkness and obscurity. Its structure and organization are, however, admirably adapted to its mode of living; particularly the construction of its fore feet, which greatly facilitates its subterraneous labours; and the small degree of its vision, which must certainly conduce to its happiness and convenience.

The usual length of this creature's body is near six inches; the fore part is thick and muscular, but the hind part tapers gradually towards the tail,

THE COMMON MOLE.

which is very short. Its head is furnished with small orifices instead of ears, and terminates in a long nose. Its eyes are extremely small, and totally hidden by the fur. Its upper jaw contains six cutting and two canine teeth, and the lower has eight of the former and two of the latter. Its fore feet, which are placed obliquely, are very broad, naked, formed like hands, and divided into five toes pointed with strong claws. Its hind feet are considerably less, but divided in a similar manner. Its skin is so exceedingly tough as scarcely to be cut through. Its hair is short, close, and softer than the finest velvet; generally of a black colour, but occasionally diversified with white spots, and sometimes perfectly white.

The Mole burrows rapidly with its fore feet, using its hind ones at the same time for the purpose of throwing back the earth. It enjoys the senses of hearing and smelling in an exquisite degree; the former of which enables it to elude destruction by a swift retreat, and the latter directs it to its food, consisting of roots, worms, insects, &c. It proves very injurious to gardens and other cultivated grounds, by turning up the soil, and loosening the roots of plants and flowers, for which reason its destruction is of great importance to husbandmen and gardeners.

In the vernal season the female prepares a commodious apartment beneath the surface of her highest hillock, and, after contriving several passages in different directions, for the purpose of concealment or the convenience of excursion, she brings forth her young, by four or five at a time, in a warm bed of moss and herbage.

The activity of this animal is most observable before rain, or at the commencement of a thaw, when the worms are in motion; but it seldom raises any hillocks in dry weather, as it is then compelled to penetrate deeper in quest of its accustomed prey. If surprised on the surface of the ground, it generally disappears so suddenly as to preclude the possibility of prevention; but when taken it utters a violent scream.

Animals of this description are found in most parts of Europe, Ireland excepted, and in the southern parts of Russia and Siberia as far as the river Lena. Some varieties are also said to inhabit the Cape of Good Hope and North America.

THE HEDGE-HOG.

GENERIC CHARACTERS.

Five toes on each foot.

Body covered with strong short spines.

SYNONIMS.

ECHINUS TERRESTRIS, *Gesner Quad.* 368.

IGEL, *Kramer Austr.* 314.

ERINACEUS EUROPEUS, *Linn. Syst.* 75.

L'HERISSON, *De Buffon*, viii. 28. *tab.* vi.

ERINACEUS TERRESTRIS, *Raii. Syn. Quad.* 231.

COMMON HEDGE-HOG, *Pennant Hist. Quad.* vol. ii. p. 234.

THIS little animal, unable to defend itself from the insults of the smaller beasts of prey, is provided, by indulgent nature, with a spinous armour, that well supplies the want of bodily strength. When alarmed it collects itself into the form of a ball, and in that position presents a surface, so admirably fortified on all sides with sharp points, that few animals, but such as are trained to the sport, will venture to attack it. The more it is tormented, the closer it rolls together; and sometimes, by voiding its urine through extreme timidity, it exhales so fetid a vapour as to obtain a deliverance from its disgusted annoyer.

The length of the Hedge-Hog is about ten inches. Its nose is long, and the nostrils are bordered on each side with a loose flap. Its ears are naked, short, and rounded; its eyes small; its legs of a dusky hue, and destitute of hair; its toes pointed with weak claws; and its tail short. The upper part of its face, together with its sides and rump, are covered with coarse

THE HEDGE-HOG.

yellowish and cinereous hair; and its back is armed with a row of strong, sharp spines, of a whitish colour, intersected with a black stripe.

During the day this animal keeps retired in small thickets, hedges, or dry ditches; but in the night it roams abroad in quest of worms, fruits, beetles, and all kinds of insects, which constitute its food. Peasants have sometimes accused it of nocturnal depredations on the udders of their cows, but this charge is considered, by naturalists, as altogether groundless.

The Hedge-Hog is naturally a mild and inoffensive creature; and is easily taken, as it neither attempts to defend itself, nor eludes the danger by flight; but merely shrinks from the touch into its circular form, which it will not easily relinquish unless immersed in water. It is said, that an animal of this description was once so completely domesticated as to obey the call of its master, and occasionally to perform the duty of a turnspit.

When the cheerless season of winter congeals the limpid rivulets, and spreads a mantle of snow over the bosom of the earth, the Hedge-Hog wraps itself securely in a comfortable nest of moss and leaves, and reposes sweetly till the return of spring. If taken out in this situation it appears completely torpid, but soon recovers on being laid before the fire.

Hedge-Hogs are commonly found in Europe, Madagascar, and some parts of Russia.



THREE TOED SLOTH.

THE THREE-TOED SLOTH.

GENERIC CHARACTERS.

Without cutting teeth in either jaw.

With canine teeth and grinders.

The fore legs much the longest.

SYNONIMS.

ARCTOPITHECUS, *Gefner Quad.* 869. *Icon. Quad.* 96.

IGNAVUS SIVE PER *arrigens* AGILIS, *Clus. exot.* 110, 372.

AI, SIVE IGNAVUS, *Marcgrave Bras.* 221. *Seb. Mus.* xxxiii. *fig.* 2.

SLOTH, *Raii Syn. Quad.* 245. *Edw.* 310.

IGNAVUS AMERICANUS, RISUM FLETU MISCENS, *Klein Quad.* 43.

BRADYPUS TRIDACTYLUS, *Linn. Syst.* 50.

TARDIGRADUS, *Briffon Quad.* 21.

OVAIKARE, PARESSIEUX, *Barrere France Æquin.* 154.

L'AI, *de Buffon*, xiii. 44. *tab.* v. vi.

WERE we to form an idea of the internal sensations of this extraordinary animal from its outward appearance, the conclusion must be extremely unfavourable. It is certainly the meanest, most contemptible, sluggish, and ill-formed animal in the creation; it is probable, however, that it possesses some source of comfort unknown to us, which places it on a level with many other creatures; and notwithstanding its uncouth appearance it will, on examination, be found to be furnished by the great Creator with parts so formed as to be best adapted to its necessities.

This species of the Sloth is generally about two feet six inches in length. It is covered all over with a harsh, coarse, stiff fur, which stands in almost

THE THREE-TOED SLOTH.

every direction, and has some resemblance to the stalks of dried grass. Its face is flat and broad, somewhat resembling that of a Monkey; the mouth extends from ear to ear; the nose is blunt; the ears very small; and the eyes small, black, and heavy: upon the whole, the countenance exhibits such appearance of distress as to excite compassion in the beholder. Its general colour resembles that of dry dust or dirt, with a yellowish cast, but it is subject to some slight variations; the colour of the face and throat is a dirty white, and a dark coloured broad stripe extends the whole length of the back. The legs are thick and strong, and the feet proceed from the body in such an oblique direction, that the soles of them cannot touch the ground, so that when the animal attempts to walk, it scrapes the back of its nails along the surface of the earth, and then wheeling the limb about in a circular direction, it at length advances slowly one step; the other limbs are then moved in their turns with equal difficulty: no wonder then that this animal is not able to advance more than three yards in the space of an hour. But although the legs and claws are ill formed for walking, they are most admirably well adapted to cling round the boughs of trees with the most perfect security, in which situation it passes the greatest part of its life, and so strong is its grasp, that nothing which it has once seized can ever escape from it without permission; for Kircher (A) informs us, that a Sloth seized a Dog, which was let loose at it, and held it fast with its feet for four days, at the end of which time the poor Dog perished through pain and hunger. The Sloth never changes its situation, except when strongly urged by the powerful calls of hunger; and then it only crawls from one tree to another, which is a work of infinite labour, and often takes the poor creature a whole week to accomplish. Providence has, therefore, kindly given it a constitution which enables it to exist a long time without food, as appears from an experiment tried on one which, having fastened itself to a long pole by its feet, remained in that situation without motion, sleep, or sustenance, during the space of forty days. It subsists entirely on vegetable substances, and chiefly on the leaves and fruit of trees, and it will frequently also eat

(A) Quoted by Pennant.

THE THREE-TOED SLOTH.

the bark. When it has ascended a tree with extreme labour and difficulty, it never quits the situation till the leaves, fruit, and blossoms, are entirely consumed, which, if the tree is large, will maintain it about a fortnight; it is then forced by hunger to quit its situation in search of another tree, and as it is unable to descend gradually, it forms itself into a round ball, and thus drops from the branches to the ground. And here we must again admire the kind care of Providence, in clothing it with hair of such a thickness and strength as to break the force of the fall, and preserve the creature from the accidents to which such an event must continually expose it. Having fallen from the tree, it lies on the ground motionless for some time, as if to recover itself; during this period it is exposed to the attacks of wild beasts; but from this danger it is likewise preserved by its miserable countenance, which is so deplorable as to disarm the most savage rage; and the cry which it utters is so plaintive, and generally accompanied with a kind of tears, that the fiercest beast seems to pity its situation, and forbears to molest a creature so completely wretched. The Sloth is a ruminating animal, and has four stomachs, like all others of this description. It is very tenacious of life, and like the tortoise, retains the vital principle for a long time after the nobler parts are taken away.

This animal inhabits many parts of the eastern coast of South America.



ARMADILLO ARMADILLO

&

ANTEATER

THE SIX-BANDED ARMADILLO.

GENERIC CHARACTERS.

Without either cutting or canine teeth.

Head and upper part of the body guarded by a crustaceous covering; the middle by pliant, crustaceous bands, formed of various segments, reaching from the back to the edges of the body.

SYNONIMS.

TATOU, *Belon Obs.* 211. *Raii Syn. Quad.*

TATU ET TATU PABA, *Brazil: Armadillo, Hispanis, Lusitanis:*

ENCUBERTO, *Marcgrave Brazil*, 131.

CATAPHRACTUS SCUTIS DUOBUS, CINGULIS SEX, *Briffon Quad.* 25.

DASIPUS SEX-CINCTUS, *Linn. Syst.* 54.

L'ENCUBERT, OU LE TATOU A SIX BANDES, *de Buffon*, x. 209.

tab. xlii.

THIS extraordinary animal, as well as all the other species of this kind, was wholly unknown to naturalists, before the discovery of America, being only found on that continent. Mild and peaceful in its nature, it is equally incapable of giving offence to other creatures, as it is of defending itself against their attacks; and, were it not for the security it finds in the strong covering with which nature has armed it, the whole of its life would be in perpetual danger. The shell, or rather shells, with which this animal is covered, differ from the shell of the Tortoise, in being unconnected with the skeleton of the animal; the shell of the Tortoise is united with the back-bone and ribs, whereas, the shells of the Armadillo form a moveable covering, which is connected only with the skin, and completely eclipses the real

THE SIX-BANDED ARMADILLO.

shape of the animal; making it appear, at first view, like a round, misshapen mass, with a long head fastened to one end, and a very long tail sticking out at the other, which, as well as the feet and legs, seem not to be of a piece with the body. This extraordinary clothing consists of a large scale, which covers the rump; and another, which extends all over the shoulders: these are united, by several bands which encircle the back and sides; the number of these bands differs greatly in the different species, some having but three, some six, some eight, ten, twelve, and even eighteen; and the number of these bands ascertains the species. They are all connected by a yellow membrane, like the articulations in the tail of a Lobster, and slide readily over each other, so as to afford the animal a free and easy motion. Besides these transverse divisions of the shells, they also articulate by a joining, which extends all along the back, and gives the animal liberty to move in every direction. The colour of these shells is usually a dirty grey, but it differs in different species: this difference arises from a peculiar circumstance in their conformation, the shell itself being covered with a softish skin, which is smooth and transparent. This shell covers the top of the head, and the tail to the utmost extremity; the only parts which want it, are the throat, breast, and belly; these are covered with a soft skin, which is white, and greatly resembles the skin of a fowl stripped of its feathers. Although this skin is apparently naked, if it be observed with attention it will be found to be covered with the rudiments of shells, of the same substance with those which cover the back.

But, however secure the Armadillo may appear to be, under the protection of this covering, it is not a sufficient guard against the attacks of its more powerful enemies. Providence has, therefore, kindly instructed it to roll itself up, like the Hedge-Hog, on the appearance of great danger. When it is violently attacked, it withdraws its head under its shell, which covers the shoulders, leaving nothing in view but the extremity of the nose. If the danger increase, the feet are all drawn up under the belly, and the two extremities united together, while the tail forms a connecting band, which gives great strength to the situation. When thus rolled up, it resembles a

THE SIX-BANDED ARMADILLO.

ball, flattish on one side, and in this posture it continues obstinately fixed, till the danger is over, and often for a long time after; and this it is enabled to do, by the assistance of strong, lateral muscles, consisting of numberless fibres, which cross each other in the form of the letter X, and give the animal a power of resistance which the strongest man is scarcely able to overcome. When the Indians find it in this form, they lay it close to the fire, the heat of which soon obliges the poor creature to unroll itself, and submit to a milder kind of death.

All these animals root up the ground, like the Hog, to search after roots. They also eat melons, potatoes, and other vegetables, and do great mischief to gardens, when they chance to enter them. They frequent damp and watery places, where they will eat small fish, worms, water insects, and animal flesh, when they can get it. Though naturally accustomed to a warm climate, they do not seem to be much affected by cold; several of them have been brought into England, where they appear to enjoy perfect health. These animals live in deep burrows, which they dig for themselves in the ground: they seldom quit their abodes, except during the night time, when they come out to feed: they seldom go far from their hole, and if surprised, immediately run towards it, to secure themselves. If they have not time to reach their hole, they instantly set about digging a fresh one, which they generally accomplish before they are overtaken by their adversary; and this they are enabled to do, by the assistance of their claws, which are extremely large, strong, and crooked. They are, however, sometimes overtaken by their pursuers, and caught by the tail before they have quite made good their retreat: in this situation it patiently awaits its fate.

Their motion is a swift kind of walk, but they can neither run, leap, nor climb trees. The flesh of the smaller kinds, when young, being delicious eating, they are much sought after, and many contrivances are practised to take them. Sometimes they are driven out of their holes by smoke, sometimes by water, and small Dogs are also taught to chase them, and force them to roll themselves up into a ball, before they have time to reach their holes; in which situation they are easily overtaken by the hunters. If the Armadillo

THE SIX-BANDED ARMADILLO.

be near a precipice, when it is pursued, it avails itself of it, by rolling itself up in a ball, close to the edge, and then tumbling down, from rock to rock, without receiving the least injury. Snares are also very often laid for them, in places which they usually frequent, and this method of taking them is commonly the most successful.

The general account we have given of this most extraordinary animal, will apply equally to all the species.

The Six-banded Armadillo, of which we give the figure, is about the size of a young Pig; the scales on the head, shoulders, and rump, are formed of angular pieces: it has six bands on the back; between these, as also on the neck and belly, are a few hairs thinly scattered; the tail is not so long as the body, but is very thick at the largest extremity, and tapers towards the point. There are five toes on each foot.

It is found in Brazil and Guiana.

THE GREAT ANT-EATER.

GENERIC CHARACTERS.

Body covered with hair.
Mouth small.
Tongue long and cylindric.
No teeth.

SYNONIMS.

MYRMECOPHAGA JUBATA, *Linn. Syst.* 52. *Klein Quad.* 45. *tab.* v.
TAMANDUA-GUACU, *Marcgrave Brasil*, 225. *Piso Brasil*, 320.
TAMANDUA MAJOR, *Barrere France Æquin.* 162.
MANGE-FOURMIS, *des Marchais*, iii. 307.
GREAT ANT-BEAR, *Raii Syn. Quad.* 241.
LE TAMANOIR, *de Buffon*, x. 141. *tab.* xxix.
GREAT ANT-EATER, *Pennant's Syn. Quad.* 260.

THE extraordinary figure of this animal readily distinguishes it, at the first view, from every other quadruped. The Horse has the longest head of any creature we are acquainted with, in proportion to the length of its body, but the snout of the Ant-Eater is so much elongated, that the head, measured from the ears to the end of the nose, is more than twice as long, in proportion, as that of the Horse. This extraordinary form of the snout is necessary for the reception of its long and slender tongue, which is two feet and a half in length, and lies doubled in the mouth, without which singular apparatus the animal could not maintain itself.

The length of the Ant-Eater is nearly four feet, from the tip of the snout to the insertion of the tail, which is two feet and a half long. The eyes are

THE GREAT ANT-EATER.

small and black; the ears short and round; the nostrils are placed close together, at the extremity of the nose. It has four toes on the fore feet, and five on the hinder ones; the two middle claws on the fore feet are very large, strong, and hooked: the colour of the hair, on the upper part of the neck, shoulders, and back, is black, mixed with grey. A broad, black line extends from the lower part of the neck cross the shoulders, which becomes gradually narrower, as it proceeds along the sides towards the back. It is bounded above by a narrow line, which extends its whole length. The hair, on the upper part of the body, is half a foot long, and has the appearance of a thick mane; the fore legs are whitish, marked above the feet with a black spot; the tail is covered with very coarse, black hairs, a foot long. The animal, being very fearful of rain, uses this part as a defence against the wet, by throwing it over its back, like the Squirrel.

The Ant-Eater is slow in its motions, it sleeps during the day time, concealed under the fallen leaves, in the woods, and seldom ventures from its retreat, except to satisfy the calls of hunger, when the industry of an hour supplies it with a sufficiency to last it for several days. It feeds on Ants, and the singular method it makes use of to catch them is, perhaps, one of the most curious facts in natural history. In the countries where this animal is found, the Ants are in great abundance, and construct hills, or nests, which are frequently five or six feet high, where they live in society. The Ant-Eater, having found one of these nests, approaches it with caution, creeping slowly on its belly, and concealing itself with as much care as possible, till it is sufficiently near for the execution of its purpose, when, extending its tongue across the path used by these busy insects, it remains motionless, in that posture, for some minutes. The Ants, mistaking the tongue for a piece of flesh, or a worm, never fail to crawl on it, in great numbers, and wherever they touch it, they are instantly entangled by the slimy fluid with which the tongue is covered, and which is as tenacious as bird-lime. When the tongue is sufficiently covered with Ants, the animal instantly draws it into its mouth, and devours them in a moment; and this operation is repeated till its hunger is completely satisfied, when it retires to its lurking place; but, should the

THE GREAT ANT-EATER.

badness of the weather, or the late hour, cause the Ants to remain in their habitation, the Ant-Eater overturns the hill, or digs holes in it with its strong claws; when, thrusting its long tongue into the retreats and passages of the nest, it withdraws it, loaded with prey, which it instantly devours.

Notwithstanding this animal is destitute of teeth, and shuns the combat, it is fierce, and even dangerous when attacked; and, if it can once get its adversary within the grasp of its fore feet, nothing but the death of the animal will make it quit its hold. In this manner it subdues even the Panther of America (A,) when it has the imprudence to attack it, and having once fixed its talons in the sides of its enemy, they both fall together, and both generally perish; for such is the obstinacy of this creature, that it will not extricate itself even from a dead adversary (B.)

An ingenious writer (C) remarks, that the most active, sprightly, and useful quadrupeds assemble themselves round the habitations of man; where they are either subservient to his pleasures, or maintain their independence, by their cunning and industry. It is in the remote solitudes of the forest, or on the desert mountains, that we must look for the helpless, deformed, and, as it were, monstrous births of nature, who find safety in places which are shunned by the bolder and more active animals. This remark is verified in the Ant-Eater, which lives chiefly in woods, and lies concealed under the fallen leaves.

This animal inhabits Brazil and Guiana, where its flesh is eaten by the Indians, but is of a strong, disagreeable taste.

(A) Gumilla Orenoque, iii, 232.

(B) Piso Brasil, 320.

(C) Dr. Goldsmith.



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GREAT MANIS

THE GREAT MANIS.

GENERIC CHARACTERS.

Back, sides, and upper part of the tail, covered with strong scales.
Mouth small; tongue long; no teeth.

SYNONIMS.

MANIS PENTADACTYLA, *Linn. Syst.* 52.

LACERTUS SQUAMOSUS, *Bontius Java*, 60. *Pet. Gaz. tab.* xx. fig. xi.

ARMADILLUS SQUAMATUS MAJOR, *Ceilanicus*, SEU DIABOLUS
Tajovanicus DICTUS, *Seb. Mus. i. tab.* liii. liv. *Klein Quad.* 47.

PHILODOTUS PENTADACTYLIS, SQUAMIS SUBROTUNDIS, *Briffon*
Quad. 18.

LE PANGOLIN, *de Buffon*, x. 180. *tab.* xxxiv.

SHORT-TAILED MANIS, *Pennant's Syn. Quad.* 259.

The uncommon shape of this animal, together with the scaly coat of mail with which it is entirely clothed, gives it, at first sight, some resemblance to the Crocodile; and an incautious observer would be induced to pronounce it a large Lizard. It has, however, no real affinity with that genus of animals, but is a true viviparous quadruped.

In order, fully, to substantiate this fact, we shall enumerate a few particulars, which constitute an undoubted essential difference between these creatures. The Lizard is produced from an egg; the Manis is brought forth alive, and perfectly formed: the Lizard is covered all over with the marks of scales, which adhere to the body even closer than those of fishes do; whereas the Manis has no scales on the throat, breast, or belly; and those which cover the other parts of the body, tail, and legs, are not only real

THE GREAT MANIS.

scales, united to the body by one edge only, but are capable of being moved whenever the animal pleases. The Lizard is wholly destitute of the means of self-defence in time of danger, and knows no safety but in flight and concealment: the Manis, on the approach of an enemy, rolls itself up into a ball, and is proof against the most powerful attacks of its assailant. The scales of this extraordinary animal differ, as to their size and form, but all are fixed to the body, somewhat like the leaves of an artichoke. Those near the tail are the largest. They are thickest in the middle, and sharp at the edges, and all end in a roundish point. They are extremely hard, and of a substance resembling horn. They are convex externally, and concave on the side next the body; one edge is fixed to the skin, while the other laps over that which is immediately behind it, much like the tiles on the roof of a house. The scales, which cover the tail, are accommodated to the shape of that part: they are all of a dusky-brown colour, and so hard, when the animal has attained its full growth, that they will turn a musket ball.

This singular quadruped grows to the length of eight feet, including the tail, which is four feet long. The back, sides, and legs, are covered with scales, between each of which is a bristle: these scales it can erect at pleasure, in the same manner as the Porcupine erects his quills, and thereby arm itself with a formidable battery, capable of resisting the attacks of any enemy. The most fierce and savage quadrupeds in vain attempt to seize it; the instant it perceives the approach of danger, it rolls itself round, like a Hedge-Hog, securing thereby the most vulnerable parts of its body with its head and feet, and in this situation it remains till the danger is over. In this posture, it is said to be capable of destroying even the Elephant, by twisting itself round the trunk, and compressing that tender organ with its hard scales (A.)

The throat, belly, and inside of the legs are hairy; the ears greatly resemble those of the human species: it has five toes on each foot, furnished with claws, which it bends under its feet when walking. It feeds on Lizards and insects, in search of which it turns up the ground with its nose,

THE GREAT MANIS.

like a Hog. It grows very fat; its flesh is esteemed delicious food, and is eaten by the negroes. It makes no noise, except a kind of snorting. Harmless and inoffensive in its nature, it shuns the society of man, and lives in obscure retreats, in woods, and damp places, where it digs itself a hole, in the cleft of some rock, and there brings forth its young. It is, therefore, seldom met with, and passes its time in solitary retirement, a wonderful instance of the variety of nature.

It walks slowly, and would, unavoidably, become the prey of every ravenous beast, were it not for the impregnable coat of armour, which Nature has so bountifully bestowed on it.

This animal inhabits the islands of India and that of Formosa: it is also found in Guinea, where the negroes call it Quogelo. It is very fond of Ants, which it takes, like the Ant-Eater, by laying its long tongue across their paths, which, being covered with a sticky saliva, effectually entangles whatever insects attempt to pass over it. As soon as the Manis perceives that the tongue is sufficiently loaded with food, it suddenly withdraws it into its mouth, and feasts on the delicious morsels with which it is loaded; and this process is repeated, till the calls of hunger are satisfied. It is against these insects, so noxious to the human species, that their whole force and cunning are exerted, and, were the negroes but sensible of the services this animal renders them, by destroying one of the greatest pests of the country, they would not be so eager to kill it. "But it is the nature of savage man, to pursue immediate, apparent good, without considering the consequences."



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WALRUS.

THE WALRUS.

GENERIC CHARACTERS.

Two great tusks in the upper jaw, pointing downwards.

Four grinders on both sides, above and below.

No cutting teeth.

Five palmated toes on each foot.

SYNONIMS.

LE MORSE, *de Buffon*, xiii. 358. *tab.* liv.

ROSMARUS, *Gefner Pisc.* 211. *Klein Quad.* 92.

WALRUS, MORS, ROSMARUS, *Raii Syn. Quad.* 191.

SEA COW, *Schreber*, ii. 88.

ODOBENUS, LA VACHE MARINE, *Briffon Quad.* 30.

TRICHECUS ROSMARUS, *Linn. Syst.* 49.

AMONG a variety of animals, whose peculiar structure capacitates them to inhabit, without restraint or inconvenience, both the land and the water, the subject of our plate holds a distinguished rank, on account of its magnitude, curious tusks, and other particulars.

The head of the Walrus is round; with a small mouth; broad lips, covered with strong pellucid bristles; diminutive, red eyes; two small orifices instead of ears; and semicircular nostrils, through which it throws out water like the whale, though with less noise. Its neck is short. Its body, which has been sometimes found to measure eighteen feet in length, and ten or twelve in circumference, at the thickest part, is covered with a thick, wrinkled skin, lightly sprinkled with short, brownish hairs. Its legs are short, and loosely articulated. Each foot is divided into five toes, connected by webs or membranes, and furnished with small nails. Its tail is very short, and its hind feet are extended nearly on a level with its body.

THE WALRUS.

These animals are gregarious, and have been sometimes seen in great numbers sleeping on the sea shore, or on islands of ice; but they are extremely shy, avoiding such places as are frequented by mankind, and plunging impetuously into the water upon the least alarm: yet, if they happen to receive a wound, they become bold and furious, and will instantly unite in attempting a revenge. It is even said, they will attack a boat, and strive to sink it by striking their teeth into its sides, bellowing at the same time in the most hideous manner.

The females produce one or two young at a time, which they suckle upon land. Their ordinary food consists of sea weeds, fish, and shells. In ascending masses of ice, or stone, they make use of their teeth, as hooks, to secure their hold, and to draw up their unwieldy bodies.

They are killed for the sake of their teeth, which are comparable to the finest ivory for whiteness and durability: and for their oil, of which an ordinary Walrus will yield half a tun, equal in quality to that of the whale. Their greatest enemy, exclusive of man, is the White Bear; but the combats between these animals are generally terminated in favour of the Walrus, whose victory results from the dreadful wounds inflicted on its opponent by its tusks, which sometimes measure two feet in length, and weigh from three to twenty pounds each.

It is said, that the Walrus hunters, on the Magdalene Isles, in the Gulf of St. Lawrence, watch the landing of these animals, and, after waiting a favourable opportunity, go on shore, armed with sharp spears, with which they cut their throats. Great caution is, however, requisite on this occasion, to prevent the fugitives, who tumble headlong into the sea, from crushing their disturbers by their vast weight. The knowledge of this chase appears to have been of great antiquity, a report having been made concerning it, by Otho the Norwegian, in the reign of Alfred; and we have sufficient reason to suppose that the teeth of the Walrus, in early times, afforded a substitute for ivory to the inhabitants of the northern part of the globe.

The Walrus inhabits the coast of Spitzbergen, Nova Zembla, Hudson's Bay, the Gulf of St. Lawrence, and the Icy Sea, as far as Cape Tschuktshi, and the adjacent islands



Engraved by W. Danson, J. Harvey & W. B. Clark, London, Jan. 15th 1822.

SEAL.

THE SEAL.

GENERIC CHARACTERS.

Cutting teeth, and two canine teeth in each jaw.
Five palmated toes on each foot.
Body thick at the shoulders, but tapering towards the tail.

SYNONIMS.

VITULUS OCEANI, *Rondeletii*, 453. 458.
PHOCA, *Gefner Pisc.* 830. *Klein Quad.* 93. *Briffon Quad.* 162.
SEAL, *Pennant Hist. Quad.* vol. ii. p. 270.
PHOCA VITULINA, *Linn. Syst.* 56.
KASSIGIAK, *Crantz Hist. Greenl.* i. 123.
LE PHOQUE, *de Buffon*, xiii. 333. *tab.* xlv. *Schreber*, cxxxiv.
LE VEAU MARIN, OU LOUP-DE MER, *Belon Poissons*, 25.
PHOCA SIVE VITULUS MARINUS, *Raii Syn. Quad.* 189.

THE object of our present contemplation has been found, with some variety, in almost every quarter of the globe; particularly towards the north and south; near the Arctic Circle, and the lower parts of America in both oceans; near the southern extremity of Terra del Fuego, and among the floating ice, as low as south lat. 60 deg. 21 min. It is also an inhabitant of the Caspian Sea, and of the fresh water lakes, Baikal and Oron.

Its body, which is covered with short, smooth hair, commonly measures from five to six feet in length: its head and nose are flat, with full black eyes, large whiskers, oblong nostrils, and a forked tongue. Its upper jaw contains two canine, and six cutting teeth; and its lower jaw has two of the former, and four of the latter. Each of its feet is furnished with five toes, armed

THE SEAL.

with strong sharp claws, that enable it to climb the rocks with facility. Its tail is short; and its colour various.

Seals are said to exhibit a considerable share of strength and agility in the water, where they find an ample supply of food and pastime; feasting on various sorts of fish, and sporting about ships and boats without the least appearance of timidity. They cannot, however, continue long beneath that element, but are frequently obliged to rise for breath, and are often seen floating on the surface of the ocean.

The female usually brings forth two young ones at a time, which, for a short space, are white and woolly: these are suckled on rocks, or in caverns, for about six weeks, when they are conducted by their mother to the sea, and instructed, by her example, in the means of procuring a future subsistence.

In summer they sleep on rocks, or sand banks, from whence, if surprised, they precipitate themselves into the sea: but if their distance from that asylum precludes the possibility of an immediate escape, they scramble along the ground, throwing up the sand or gravel with their hind feet, at the same time uttering a cry expressive of lamentation. If overtaken, they make a most vigorous defence with their feet and teeth: yet their docility is great, and their natural disposition gentle, inasmuch, that Dr. Parsons (A) has recorded an instance of one which was so completely tamed as to crawl out of its tub at command, stretch itself at full length, extend its neck to salute its master, and return into the water pursuant to his direction.

Prodigious numbers of these animals are found in the Caspian Sea, where they possess a great diversity of colour; some being perfectly white, others black, others mouse-coloured, and others spotted like a Leopard. On crawling to the shore they are immediately killed; yet they are followed by others, which share a similar fate.

At the approach of winter they go up the Jaik, and are killed in great numbers on the floating ice. They are likewise destroyed, occasionally, by Wolves and Jackalls, for which reason the Seal hunters are very assiduous in driving away those ferocious Quadrupeds.

(A) Ph. Trans. xlvii. 113.

THE SEAL.

The season for taking Seals is in October and November; when the hunters enter the mouths of the caverns at midnight, with torches and bludgeons, and, after stationing themselves in the most advantageous manner, alarm their prey by making a great noise. The Seals then advance in a confused throng from all parts of the cavern, filling the air with the most piteous moans; and, when the first crowd is past, whose resistless impetuosity might prove fatal to the hunters without proper caution, great numbers of the young ones are killed by a blow on the nose, which speedily terminates their existence, though any other method would prove tedious, and possibly ineffectual.

The flesh of the Seal is sometimes eaten by voyagers, and was formerly considered as an article of luxury, as appears by a bill of fare of a costly entertainment, given by Archbishop Nevil, in the reign of Edward IV. At present, however, the animal is hunted chiefly for its skin, which is used for numerous conveniences; and makes a beautiful kind of leather; and for its oil, of which more than eight gallons are commonly extracted from a young one.

The Seals found in the lakes Oron and Baikal are smaller than those which inhabit salt waters, but so extremely fat as to seem almost shapeless. The voice of the young ones is clear, and somewhat similar to the mewling of a cat; but that of the old ones resembles the hoarse barking of a dog.



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PORT EARED BAT.

THE BAT.

GENERIC CHARACTERS.

The fore feet furnished with long extended toes, connected by broad, thin membranes, that reach to the hind legs.

Ears short.

SYNONIMS.

BAT, FLITTER MOUSE, *Raii Syn. Quad.* 243.

VESPERTILIO, *Plinii*, lib. x. c. 61. *Gefner Quad.* 766.

REAR MOUSE, *Charlton Ex.* 80.

VESPERTILIO MAJOR, *Klein Quad.* 61.

VESPERTILIO MURINUS, *Linn. Syst.* 47.

COMMON BAT, *Pennant Hist. Quad.* vol. ii. p. 319.

LE GRANDE CHAUVE-ÉOURIS DE NOTRE PAIS, *de Buffon*, viii. 113.
tab. xvi.

THIS singular animal seems to form a connecting link in the great chain of nature, between the Quadrupeds and the winged inhabitants of the air. Yet we are at no loss respecting its true station in natural history, since its wings are the *only* mark of alliance with the birds, whilst it is evidently related to the four-footed tribe, both by its internal and external formation. In either capacity, however, it seems imperfect; its motions on the ground being awkward and encumbered, its ascent difficult, and its flight ill-directed: a circumstance which has induced Mr. Ray to give it the significant appellation of the "Flitter Mouse."

THE BAT.

The body of the common Bat is about two inches and a half long; covered with short, soft fur, of a mouse-colour, tinged with red. Its eyes are very small. Each of its jaws is furnished with cutting teeth; and its ears are similar to those of a Mouse. Its wings, or membranes, are of a dusky colour, and extremely thin: they reach from the fore feet to the tail; and, when extended, measure nine inches. Its hind feet are divided into five toes, pointed with claws.

The Bat makes its first appearance at the commencement of summer, when it frequents the sides of glades and sylvan walks, in the dusk of the evening, and frequently skims along the surface of the water, in quest of gnats and other insects, that constitute the chief part of its food. Towards the end of its favourite season it retires into caverns, hollow trees, or dilapidated buildings, where it either suspends itself by its hind feet, or covers itself with its wings, and sinks into a kind of lethargy, which continues till the loud storms of winter have subsided, and cheerful spring has announced the approach of her gay successor.

The female Bat produces two young ones at a time, which she nourishes with her milk, and carries with her in her aerial excursions.

These animals inhabit almost every part of Europe, and are universally known in England. Some varieties are also found in Guinea, Jamaica, America, and the Molucca Isles.



LONG EARED BAT
&
TERNATE BAT.

Published Feb^r 23^d 1805 by W Darton J Harvey & W Welch London.

THE LONG-EARED BAT.

GENERIC CHARACTERS.

The fore feet furnished with long, extended toes, connected by broad, thin membranes, that reach to the hind legs.

SYNONIMS.

VESPERTILIO AURITUS. V. CAUDATUS, ORE NASOQUE SIMPLICI,
AURICULIS DUPLICATIS CAPITE MAJORIBUS, *Linn. Syst.*
Nat. 47.

VESPERTILIO MURINI COLORIS, AURICULIS DUPLICIBUS, *Briffon*
Quad. 160.

SOURIS CHAUVE, RATTE PENADE, *Belon. Oyf.* 147.

L'OREILLAR, *de Buffon*, viii. 118.

LONG-EARED ENGLISH BAT, *Edwards*, pl. 201.

THIS species nearly resembles the Common Bat, but is rather smaller, and has less of a reddish tinge. Its distinguishing mark is the uncommon size of its ears, which are more than an inch long, and very wide. They are furnished with a kind of secondary ear, or internal flap, serving as a protection to the auditory orifice. It is common in England, lodging in great numbers in the holes of old buildings, under eaves, and in cavities of rocks, where they become torpid in the winter.

THE TERNATE BAT.

GENERIC CHARACTERS.

The fore feet furnished with long, extended toes, connected by broad, thin membranes, that reach to the hind legs.

SYNONIMS.

VESPERTILIO VAMPIRUS. V. ECAUDATUS NASO SIMPLICI,
MEMBRANA INTER FEMORA DIVISA, *Linn. Syst. Nat.* 46.

VESPERTILIO INGENS, *Clus. exot.* 94.

CANIS VOLANS TERNATANUS ORIENTALIS, *Seb. i.* 57.

LA ROUSSETTE, *de Buffon*, x. 55.

VAMPIRE BAT, *Shaw*.

THIS large species of Bat is a formidable animal, measuring from four to five or six feet from one tip of the wing to the other, with a body of about a foot in length. Its general colour is a deep reddish brown, brighter on the upper part of the neck and shoulders, and likewise on the under side of the body. It has a sharp, black nose; four cutting teeth above and below, and large and strong canine teeth; a pointed tongue, terminated with sharp prickles; large, naked ears; and no tail. The single claw on its wings is large and strong; the talons on its feet strong, crooked, and flattened sideways. Its flying membrane is divided below quite to the rump.

This species is found in Guinea, Madagascar, and all the islands in the Indian Ocean, as well as that from which it takes its name. It is not gregarious, though many often resort to the same tree in quest of food.

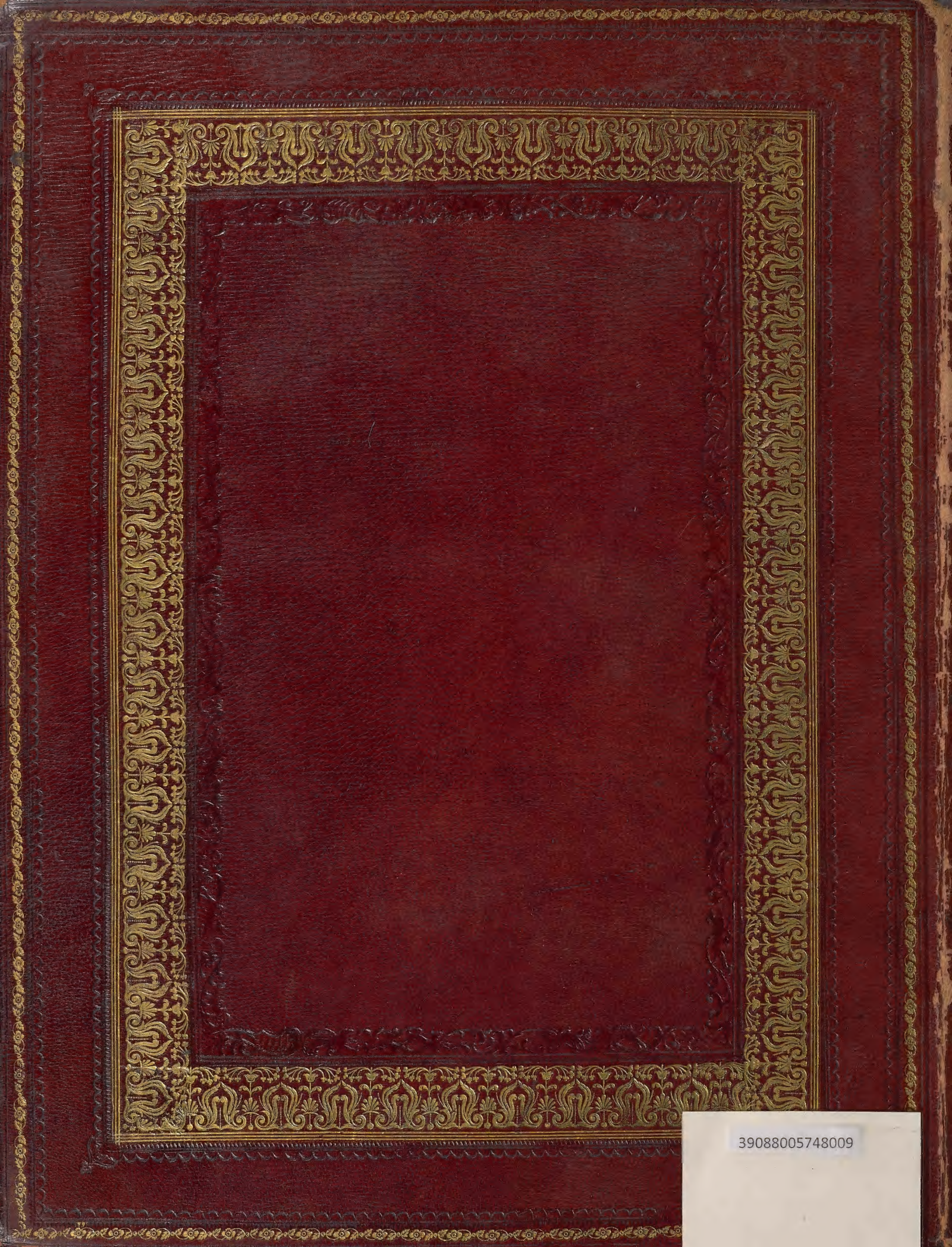
THE TERNATE BAT.

They fly by day. While eating, they make a great noise. Their smell is rank; and they bite fiercely when taken.

Linnæus has given the name of Vampyre (an imaginary blood-thirsty monster) to this species, from its propensity to suck blood from persons in their sleep; which, from its size, it is able to effect to an alarming degree. It inserts the point of its tongue into a vein, and drains the blood till it is fatiated, fanning the air all the time with its wings, which occasions an agreeable sensation in those hot climates, and prolongs sleep. Persons lying with their feet uncovered are often thus blooded, till they are near passing into the sleep of death. Cattle are likewise attacked by these animals, and are said to be frequently destroyed by them. It is conjectured, from the uncouth appearance and disgusting qualities of the large Bats, that they have given rise to the ancient fables of Harpies.

FINIS.





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